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US ARMY INSTITUTE OF PUBLIC HEALTH
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MCHB-IP-HPH

16 May 2014

MEMORANDUM FOR COL Kirk W. Eggleston, Commander, Fort Stewart Medical Department Activity (MEDDAC), 1061 Harmon Ave, Fort Stewart, GA 31314.

SUBJECT: Evaluation of the Fort Stewart/Hunter Army Airfield Tobacco-free Medical Campus Policy, June 2012-September 2013, Public Health Assessment Report No. S.0008081-12, March 2014.

1. Enclosed is a copy of the US Army Public Health Command's (USAPHC) documenting findings from an evaluation of the effectiveness of the FS/HAAF medical tobacco-free campus (TFC) policy during its first year of implementation in terms of employee: (1) attitudes, awareness, and support for the policy, (2) exposure to SHS, tobacco use, motivation to quit, smoking-cessation activities, and health outcomes, (3) compliance with and enforcement of the policy, (4) suggestions about what would make the FS/HAAF TFC policy more desirable, and (5) thoughts about tobacco-free Army installations.
2. Findings from this evaluation will help improve the existing FS/HAAF medical TFC policy and will inform the implementation of TFC policies at other military treatment facilities (MTFs) as well as Army tobacco-control initiatives.
3. The FS/HAAF TFC policy already adheres to best-practices for TFCs, but reinforcement is needed for continued and increased success. The following recommendations are provided to increase awareness of, compliance with, and effectiveness of the FS/HAAF medical campuses policy:
 - a. Increase awareness of the policy through strategies including but not limited to improving signage, incorporating education on the policy into existing communication channels such as the U.S. Army Medical Department (AMEDD) Personnel Education and Quality System (APEQS) training video or waiting room TVs, and disseminating a policy fact sheet.
 - b. Enhance compliance with the policy by improving use of information cards, providing examples of effective enforcement techniques to staff who may feel uncomfortable approaching violators, including all members of the medical campuses in enforcement, and conducting outreach to contract companies.

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c. Improve cessation services and increase quit-rates through strategies including but not limited to enhancing advertisement of available services, ensuring all medical providers are trained on how to speak with patients about tobacco use, reducing barriers to access medication, and promoting cessation services using motivators identified by tobacco users in this report (e.g., improved run times, fitness goals, and general health concerns).

d. Continue to evaluate the TFC policy to measure the policy's mid- and long-term effectiveness, identify areas for improvement, and build best-practices.

e. Continue to keep the campus 100% tobacco free as the model for future MTFs and installations. Despite some participants expressing a desire for designated smoking areas, a 100% smoke-free policy has a greater effect than a partial ban at reducing the number of cigarettes consumed and overall increases the likelihood of someone quitting.

f. Engage with leaders in areas surrounding the medical campuses (i.e., National Guard, Warrior Transition Unit (WTU)) about how to mitigate unanticipated effects of increased cigarette butt litter, fire hazards, and so forth.

g. If crosswalks are not in place at major intersections around the campuses or leading off the campuses, consider adding them. If crosswalks already exist, remind employees to use them for safety.

h. Promote the success of the policy; provide results of this evaluation and feedback to employees.

i. Share lessons-learned with other MTFs.

4. In addition to recommendations specific to your MTF's TFC policy, the report provides recommendations for other MTFs seeking to implement similar policies and to the Army as it considers implementation of tobacco-free military installations.

5. Please refer to the enclosed document for further detail regarding the evaluation findings and methodology.

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SUBJECT: Evaluation of the Fort Stewart/Hunter Army Airfield Tobacco-free Medical Campus Policy, June 2012-September 2013, Public Health Assessment Report No. S.0008081-12, March 2014.

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FOR THE DIRECTOR:

Encl

A handwritten signature in black ink, appearing to read 'Laura A. Mitvalsky', is positioned above the printed name and title.

LAURA A. MITVALSKY
Director, Health Promotion
and Wellness



U.S. ARMY PUBLIC HEALTH COMMAND

5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403

Public Health Assessment Report No. S.0008081-12, March 2014

**Public Health Assessment Program
Health Promotion and Wellness Portfolio**

**Evaluation of the Fort Stewart/Hunter Army Airfield Tobacco-free Medical Campus
Policy, June 2012—September 2013**

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Public Health Assessment Report No.S.0008081-12
Evaluation of the Fort Stewart/Hunter Army Airfield
Tobacco-free Medical Campus Policy
June 2012—September 2013

1 Summary

1.1 Overview

Fort Stewart and Hunter Army Airfield (FS/HAAF), Georgia implemented a tobacco-free campus (TFC) policy at their medical (U.S. Medical Activity (MEDDAC)/U.S. Army Dental Activity (DENTAC)/U.S. Army Veterinary Command (VETCOM)) campuses, which includes Winn Army Community Hospital (Winn ACH), in June 2012. Evidence has shown that tobacco-free policies in enclosed workplace settings protect employee and patient health by reducing exposure to secondhand smoke (SHS) and are associated with reduced daily cigarette consumption and increased smoking cessation among employees (Fichtenberg, 2002; Bauer, 2005).

The purpose of this evaluation was to assess the effectiveness of the FS/HAAF medical TFC policy during its first year of implementation using qualitative and quantitative methods including baseline and follow-up surveys ($N_{baseline}=1,210$, $N_{follow-up}=1,194$), focus groups ($N=41$), interviews ($N=11$), and informal discussions ($N=13$). Policy processes and effectiveness were assessed in terms of employee: (1) attitudes, awareness, and support for the policy, (2) exposure to SHS, tobacco use, motivation to quit, smoking-cessation activities, and health outcomes, (3) compliance with and enforcement of the policy, (4) suggestions about what would make the FS/HAAF TFC policy more desirable, and (5) thoughts about tobacco-free Army installations. Results from this evaluation will help improve the existing FS/HAAF medical TFC policy and will inform the implementation of TFC policies at other military treatment facilities (MTFs) as well as Army tobacco-control initiatives.

1.2 Purpose

This report summarizes key findings and recommendations from the evaluation of FS/HAAF's TFC Policy implemented in July 2012, completed by the U.S. Army Public Health Command (USAPHC) Army Institute of Public Health (AIPH).

1.3 Conclusions

1.3.1 Attitudes, Awareness, and Support

a. Satisfaction with the Policy. The proportion of employees reporting satisfaction with the 100% tobacco-free policy was significantly higher (59.4%) than with the previous policy that included designated smoking areas (33.6%); however, tobacco users' satisfaction decreased from the policy allowing tobacco use in the designated areas to the TFC. The majority of qualitative evaluation participants, including tobacco users, accepted the current policy because it reduces SHS exposure. Any dissatisfaction with the policy largely stemmed from perceptions that it infringes on individual rights, is discriminatory, or is non-punitive. Many participants did not think the policy needed improvement but thought that more explicit explanations of the policy would enhance compliance.

b. Awareness. Most participants were familiar with the policy and aware of its boundaries. Signage was the primary source of information for the policy, but participants thought signs needed to be more visible, more explicit, or replaced in some areas.

1.3.2 Policy Effect on Exposure to Secondhand Smoke, Tobacco Use, Motivation to Quit, Smoking Cessation Activities, and Health Outcomes

a. **Effect on SHS Exposure.** Exposure to SHS decreased significantly from baseline to 12-month follow-up. After controlling for key demographic characteristics, employees had more than twice the odds of reporting SHS exposure at baseline than at 12 months following policy implementation (OR: 2.06, $p < .001$). Qualitative results support this finding, but participants noted SHS had shifted to other areas outside of medical campus boundaries.

b. **Effect on Tobacco Use, Cessation, and Motivation to Quit.** The policy did not have a significant effect on overall daily tobacco consumption, quit-rates, motivation to quit, or utilization of cessation services. Qualitative participants desired greater levels of access to and availability of cessation services, classes, and products than what is currently available.

c. **Effect on Health Outcomes.** Employees were no more likely to have taken sick days at baseline than at 12-month follow-up after taking into account all differences in demographic characteristics. However, the odds of employees reporting a chronic bronchitis diagnosis were 1.45 times greater at baseline than at 12-month follow-up after taking into account all differences in demographic characteristics, suggesting a decrease in bronchitis rates over time.

d. **Other Effects.** There were several unanticipated policy effects elicited from the qualitative data which includes effects on break times, safety, cigarette butts, visibility of smokers, and perceptions of marginalization.

1.3.3 Compliance and Enforcement

a. **Violations.** Survey data indicated that 75% of employees had seen five or fewer violations since the policy was implemented. Qualitative data revealed that most participants reported seeing violations almost daily, with construction workers and contractors as the most frequent violators. Violations commonly occurred in vehicles, in the parking lot, or along the campus perimeter.

b. **Enforcement:** The policy was mostly self-regulated without confrontation, but employees experience varying comfort levels when enforcing the policy. Military rank, fear of backlash, and concern for the violator were the main reasons for reluctance to enforce the policy. Participants thought the policy was difficult to enforce but were hesitant to suggest harsher repercussions. Participants praised signage as an enforcement tool, but many did not distribute the information cards provided to them by the MTF, which were designed as a non-confrontational method to increase compliance.

1.3.4 Suggestions for Policy Improvement

Qualitative findings suggested participants were amenable to a TFC, but several tobacco users still wanted at least one designated smoking area. Many participants did not think the policy needed improvement but thought that more explicit explanations of the policy's procedures, regulations, and boundaries would enhance compliance as would improved signage. Participants desired greater access to and availability of cessation services, classes, and products.

1.3.5 Thoughts on a Tobacco-free Installation

The majority of participants were strongly against a TFI (except for administrators) regardless of whether they supported the FS/HAAF MEDDAC TFC policy. The top reason for being against a TFI was that it infringed on individual rights and personal freedom. The minority that supported a TFI had concerns about feasibility, compliance, and practicality; many participants offered hypothesized effects.

1.4 Recommendations

1.4.1 Recommendations for FS/HAAF Medical Campuses

The FS/HAAF TFC policy already adheres to best-practices for TFCs, but reinforcement is needed for continued and increased success. The following are provided to increase awareness of, compliance with, and effectiveness of the FS/HAAF medical campuses policy:

- Increase awareness of the policy through strategies including but not limited to improving signage, incorporating education on the policy into existing communication channels such as an the U.S. Army Medical Department (AMEDD) Personnel Education and Quality System (APEQS) training video or waiting room TVs, and disseminating a policy fact sheet.
- Enhance compliance with the policy by improving use of information cards, providing examples of effective enforcement techniques to staff who may feel uncomfortable approaching violators, including all members of the medical campuses in enforcement, and conducting outreach to contract companies.
- Improve cessation services and increase quit-rates through strategies including but not limited to enhancing advertisement of available services, ensuring all medical providers are trained on how to speak with patients about tobacco use, reducing barriers to access medication, and promoting cessation services using motivators identified by tobacco users in this report (e.g., improved run times, fitness goals, and general health concerns).
- Continue to evaluate the TFC policy to measure the policy's mid- and long-term effectiveness, identify areas for improvement, and build best-practices.
- Continue to keep the campus 100% tobacco free as the model for future MTFs and installations. Despite some participants expressing a desire for designated smoking areas, a 100% smoke-free policy has a greater effect than a partial ban at reducing the number of cigarettes consumed and overall increases the likelihood of someone quitting (Bauer, 2005).
- Engage with leaders in areas surrounding the medical campuses (i.e., National Guard, Warrior Transition Unit (WTU)) about how to mitigate unanticipated effects of increased cigarette butt litter, fire hazards, and so forth.
- If crosswalks are not in place at major intersections around the campuses or leading off the campuses, consider adding them. If crosswalks already exist, remind employees to use them for safety.

- Promote the success of the policy; provide results of this evaluation and feedback to employees.
- Share lessons-learned with other MTFs.

1.4.2 Recommendations for Other Military Treatment Facilities of Installation Medical Campuses

Any MTFs or installation medical campuses intending to go tobacco free should follow the TFC model as delineated by the Centers for Disease Control and Prevention (CDC) and incorporate lessons-learned from FS/HAAF medical campuses.

- Assess needs and interest by forming a TFC committee, assessing management interest, assessing the current situation at the local MTF, and gathering input from employees and other stakeholders.
- Plan by forming a planning committee, developing a TFC policy specific to the local MTF or medical campuses, and offering comprehensive tobacco-cessation services.
- Promote the policy through a communication plan, key communication messages, and communication strategies.
- Implement the policy, ensuring to announce the policy, continue to offer cessation services, create an environment that conveys tobacco-free messaging, enforce the policy, and monitor the policy.
- Evaluate success through data collection, analysis, and reporting.
- Set a target date for all MTFs to go tobacco free.
- Incorporate lessons-learned from other medical facilities in the Civilian sector that have gone tobacco free.

1.4.3 Recommendations for Tobacco-free Installations

Any TFC or TFI initiatives should follow the steps and adhere to the general recommendations provided by the CDC, the Institute of Medicine (IOM), and national prevention experts.

- The Army should consider incremental changes as it moves towards TFIs.
- The Army should build upon lessons-learned by similar communities, and particularly college campuses that have implemented TFC policies.
- The Army should expect resistance to TFIs but should not let this resistance impede progress.
- The Army should offer evidence-based tobacco-cessation and prevention initiatives to all Soldiers, beneficiaries, and Civilian employees.
- The Army and its leadership should ensure they are sending clear, consistent messages regarding its expectations regarding Soldiers' tobacco use.

2 References

See Appendix A for a list of references used within this report.

3 Authority

Under U.S. Army Regulation 40-5, Section 2-19, the USAPHC is responsible for providing support for Army preventive medicine activities, to include conducting periodic evaluations of regional and local preventive medicine programs and services in support of U.S. Army Medical Command (MEDCOM) oversight responsibilities.

4 Background

4.1 Policy Description

The official policy memorandum for the FS/HAAF TFC is provided as Appendix B .

4.1.1 Policy Overview

On 14 July 2012, FS/HAAF instituted a TFC policy applicable at the MEDDAC at FS; the Tuttle Army Health Clinic at HAAF, and all outlying health, DENTAC, and VETCOM clinics at FS/HAAF. The policy prohibits the use of tobacco products on campus and applies to all MEDDAC, DENTAC, and VETCOM employees, patients, visitors, students, trainees, volunteers, vendors, and supplemental staff (to include contract employees). Key definitions of tobacco and campus as delineated in the policy are provided below.

- **Tobacco.** Defined as including but not limited to cigarettes, cigars, pipes, and smokeless tobacco. The policy also explicitly prohibits the use of electric cigarettes.
- **Campus.** Defined as any property or non-residential building that is owned, operated, maintained, or leased by the MEDDAC, DENTAC, or VETCOM, to include all roads, parking lots, and sidewalks.

A logic model depicting the policies inputs, outputs, and intended outcomes is provided as Appendix C.

4.1.2 Policy Advertisement

The policy calls for signage advertising the TFC in prominent, visible areas at each building entrance, throughout the parking areas, clinic waiting areas, ward nursing stations, and information desks. Additional methods of information dissemination regarding the policy include new employee orientation briefings, supervisor-to-supervisee conversations, annual safety briefings, and public affairs channels such as the internet, intranet, social media, and local news operations.

4.1.3 Policy Enforcement

Per the policy memorandum, the TFC enforcement approach is educational and supportive in nature rather than punitive. All military noncommissioned officers and officers, as well as Civilian supervisors, are expected to assist with enforcement by courteously informing violators (e.g.,

employees, patients, and visitors) about the policy and handing them a TFC information card explaining the policy and offering information on cessation services. At present, there are no fines or formal citations issued for policy violations.

4.2 Literature Review

Despite successful advances in tobacco control and declining tobacco-use rates in recent decades, tobacco use remains the single most preventable cause of death in the world, and there is no risk-free level of SHS exposure (IOM, 2009; IOM, 2010). Tobacco-use rates have declined significantly since the 1960s (from nearly 50% in 1964 to 18.1% in 2012 for U.S. adults), and the majority of Americans (81%) now have smoke-free workplaces (U.S. Department of Health and Human Services (DHHS), 2014). However, only 4–7% of the 50% of current everyday smokers that attempt to quit are successful, warranting the need to strive for a tobacco-free culture (IOM, 2009).

Scientific literature shows that policies establishing tobacco-free environments in the workplace successfully reduce SHS exposure (primary objective) and create environments in which tobacco users find it easier to reduce their consumption or quit altogether (secondary objective) (Fichtenberg 2002; CDC 2007; Callinan, 2010). However, many of the studies on tobacco-free environments tend to focus on the effects of smoking bans on SHS and do not typically examine the effects on active smoking (e.g., smoking prevalence rates, measures of tobacco consumption, and smoking cessation). In a meta-analysis of 50 studies on legislated national, state or community smoking bans, fewer than half studied the ban's effects on active smoking (Callinan, 2010). Therefore, smoking bans' effect on active smoking is still inconclusive, but the trend is downward (Callinan, 2010).

The implementation of tobacco-free policies has expanded across a variety of organizations in recent years. The Joint Commission on the Accreditation of Health Care organizations banned smoking inside hospitals in 1993, but campus-wide restrictions were not mandatory (DHHS, 2014). By 2008, 45% of U.S. hospitals had expanded to smoke-free campus policies as well (DHHS, 2014). Incentives for hospitals to adopt a smoking ban include a cleaner campus with less maintenance, decreased sick days taken, fewer smokers, and decreased health insurance costs (Wheeler, 2007). The Mayo Medical Center was one of the first successful tobacco-free hospitals (Hurt, 1989). The Center's employees were surveyed prior to implementation to identify potential problem areas. Survey results found that the main concerns were for patients and coworkers that smoke. These concerns included "the need for smoking cessation programs," "enforcement issues," and concern that the policy intrudes on individual rights (Hurt, 1989). Many colleges, universities, private business, and Federal prisons in 19 states have followed suit with TFCs; however, two in three U.S. individuals still live under state or local laws that do not make workplaces 100% smoke-free (DHHS, 2014).

Smoking's harmful effects are a threat to military mission readiness (IOM, 2009). While rates of tobacco use in the military have mirrored Civilian rates and have also declined since 1964, smoking rates in the military are still higher than comparable Civilian populations; the prevalence of smoking among military personnel is 50% higher for Service members who have been deployed (Nelson, 2008; IOM, 2009). In a literature review of 85 articles, researchers determined that approximately 41% of 18–25 year olds in the military were current smokers in 2006, compared to a much lower 28% in the general population (Nelson, 2008). Cessation interventions that are typically effective for the general public may not be effective or feasible for military members due to their unique job requirements, which include potentially dangerous environments where tobacco is one of few easily accessible stress-relievers and cessation services or classes are not available (Nelson, 2008).

The Department of Defense (DOD) has been aware for decades that nonsmoking regulations and stopping the sale of tobacco products to personnel and dependents would have positive effects on health, readiness, and future health-care expenditures (Arvey, 2008). A large obstacle for military nonsmoking regulations has been the inability of DOD and individual military commanders to counter political pressures that ultimately diminish effective policies (Arvey, 2008). These political forces include the influence of the tobacco industry over policymakers, personnel, and Civilian Union leaders. As of 2008, tobacco prices on an installation are highly competitive and relatively low compared to Civilian tobacco costs due to political pressure and military officials believing that tobacco use is a Soldier's right (Nelson, 2008). The MTFs have also been slower to adopt TFC policies than the Civilian sector.

There is currently no literature available documenting the effectiveness of a military medical campus implementation of a TFC policy on SHS exposure or tobacco-use rates of employees. This evaluation is the first to fill the identified knowledge gap in public health and military literature.

4.3 Purpose

The purpose of this evaluation was to assess the effectiveness of the FS/HAAF TFC policy during its first year of implementation using an evaluation design with qualitative and quantitative components. The guiding questions for the evaluation are provided below.

1. What are employees' attitudes, awareness, and support towards the policy?
2. What effects has the policy had on employees (to include SHS exposure, tobacco-use habits, motivation to quit and utilization of cessation activities, health outcomes, and other effects)?
3. To what extent are employees complying with the policy, and how effective are enforcement efforts?
4. What do employees want in their workplace tobacco policy, and what suggestions do they have for the TFC policy at FS/HAAF medical campuses?
5. What are employees' thoughts on a tobacco-free Army installation?

The results of this evaluation provide recommendations for the policy at FS/HAAF, other MTFs looking to implement similar tobacco-free campus policies, and overall recommendations for tobacco control within the Army.

5 Methods

5.1 Overview

This evaluation utilized a mixed-methods approach with both quantitative and qualitative components. The USAPHC Public Health Review Board reviewed and approved both aspects of the evaluation as public health practice. All data for this evaluation were collected between June 2012 and September 2013.

5.2 Study Population and Sampling

The study population for this evaluation was medical campus employees at FS/HAAF, which included government service Civilians, contractual staff, and Active Duty military. Figure F-1 depicts the distribution of the 1,759 medical campus employees by command affiliation (VETCOM, MEDCOM, or DENCOM) and duty status. For the quantitative evaluation component (described in detail in section 5.3 below), the evaluation team utilized a census strategy in which all current employees were emailed an anonymous survey link at both baseline and 12-month follow-up.

The qualitative evaluation component (described in section 5.4 below) utilized a convenience-sampling design in which employees self-selected and volunteered to participate.

Each component of the evaluation was conducted independently. Therefore, evaluation participants may have completed surveys only, the qualitative component only, or both surveys and the qualitative component. Due to the anonymous nature of the surveys (described below), it is not possible to determine the degree to which the samples for the two components overlap.

5.3 Quantitative Evaluation Component

The evaluation team distributed electronic baseline survey questionnaires to all employees of the FS/HAAF MEDDAC, VETCOM, and DENTAC for a 2-week period in June 2012. The commander of Winn ACH (a component of FS/HAAF's MEDDAC) distributed the survey link via email and mandated participation. All responses were anonymous, but Winn ACH leadership monitored survey participation through the APEQS.

Twelve months after policy implementation, the evaluation team again distributed an anonymous electronic questionnaire to FS/HAAF MEDDAC, VETCOM, and DENTAC employees. The survey was open for approximately 4 weeks from mid-July 2013 through mid-August 2013; Winn ACH leadership utilized APEQS to encourage and monitor questionnaire completion. Leadership sent reminders to staff encouraging completion until there was a response rate of 65%. The evaluation team used an online survey creation program, Vovici™, to create and distribute all surveys. (Vovici™ is a trademark of the Vovici Corporation.)

Given the time between pre- and post-testing and the change in the group that could have been eligible to participate, the samples were treated as independent even though there were some respondents who could have answered both instruments. Moreover, the surveys were anonymous and could not be matched between pre- and post-test. Therefore, the quantitative component of the evaluation utilized a non-experimental, separate sample, pre-test/post-test design (depicted in Figure F-2). Survey tools utilized in this evaluation are provided as Appendix D, and a summary of constructs measured on the baseline and follow-up questionnaires is provided in Table G-1.

Once the AIPH received all data, the team cleaned and generated descriptive information on all variables using the Software Package for Statistics and Simulation (SPSS®) version 21.0 or higher. To determine whether any observed differences between baseline and 12-month data were statistically significant, the analysis team utilized chi-square tests for independence for categorical outcomes and independent samples t-tests for continuous outcomes. In chi-square analyses resulting in statistical significance, the team then visually examined the data to determine where shifts occurred. In all analyses, the primary independent variable of interest was time (baseline v. follow-up), and the dependent variables were outcomes depicted in the TFC logic model (Appendix

C). A standard Type I error rate of .05 was used to denote statistical significance in all analyses. (SPSS® is a registered trademark of SPSS, Inc.)

The analysis team additionally generated multiple regression models for four key outcomes in the evaluation: (1) exposure to SHS (logistic regression), (2) number of cigarettes smoked daily at work (linear regression, tobacco users only), (3) sick days taken for respiratory illness in the last 12 months (logistic regression), and (4) diagnosis with chronic bronchitis (logistic regression). These analyses allowed the team to control for key demographic characteristics and/or potential confounders. All regression models utilized a block-model entry with the following predictors: age (reference group: 18–24), sex (reference group: female), duty status (reference group: Civilian), position (reference group: clinician), command affiliation (reference group: MEDDAC), smoker status (reference group: nonsmoker), and time of data collection (reference group: 12 month follow-up). All categorical variables were dummy-coded prior to analysis.

5.4 Qualitative Evaluation Component

From 16–19 September 2013, a team of four AIPH program evaluators traveled to Fort Stewart, Georgia to conduct a series of focus groups, interviews, and informal discussions with FS/HAAF medical campus staff. The purpose of this evaluation component was to determine if and how FS/HAAF's TFC smoking policy affected tobacco and non-tobacco users and to document lessons-learned from policy administrators to inform related future efforts within AMEDD and DOD. All data were collected approximately 1 year after the policy had been implemented; therefore, the qualitative component utilized a non-experimental, post-test-only design (see Figure F-3).

The qualitative team created four data collection tools—one each for current tobacco users, former tobacco users, non-tobacco users, and policy administrators. Groups were stratified to reduce bias and potential stigmatization of tobacco users. A summary of the constructs discussed in each type of group is provided as Table G-2.

The former Winn ACH Chief of Preventive Medicine and other members of the TFC implementation team recruited participants to participate in the focus groups prior to AIPH's arrival. Recruitment occurred via email, posters, and outside the MTF dining facility the month before on-site data collection. Participants were allowed to participate in the focus groups and interviews during their duty day but did not receive any additional incentives for participation.

Because all planned groups did not fill entirely, the AIPH team used some of its time on the ground conducting informal discussions with both MTF employees and patients. An AIPH facilitator led each focus group, and an AIPH note-taker took extensive notes throughout the session. With the exception of two interviews, each group or interview was audio-recorded. Before the focus group or interview began, the facilitator explained the purpose and procedure of the focus group or interview, encouraged open discussion among the group, informed the participants that their participation and comments would remain anonymous, and consented the participants for participation and to audio-record the session. Participants were also asked to complete a brief demographic information sheet.

In total, the AIPH team conducted 23 focus groups, structured interviews, and/or informal discussions with employees and patients of the FS/HAAF medical campus. A description of the data collection type, tobacco user and employee status of audience, and number of participants is provided in Table G-3.

After qualitative data collection was complete, subcontractors transcribed the audio-recordings verbatim and redacted any identifying information. Transcripts were reviewed for accuracy and were then entered into NVivo® 9 for data management, coding, and analysis. (NVivo® is a registered trademark of QSR International Pty Ltd.)

The evaluation team utilized a team-based coding and constant-comparison approach, which consists of an iterative process of revising the qualitative codebook to reflect emerging themes and applying the codes systematically across teams (MacQueen et al 2008). Specifically, the team applied a coding taxonomy in which multiple levels of coding are applied to the qualitative data. The qualitative team first applied group attributes to the qualitative data including Group Type (Focus group, Interview, Informal Discussion), Audience (Current Tobacco User, Non-Tobacco User, Former Tobacco User, Administrator), and Employee position (i.e., employees, patients, or mixed) to identify the unique data set from which comments and themes emerged.

The evaluation team then collectively developed a codebook which consisted first of structural codes. Most structural codes were derived from key evaluation questions/constructs and included TFC policy knowledge and awareness, TFC Policy Effects, Enforcement, Quitting, Thoughts on a TFI, Lessons-Learned by Administrators, General Attitudes, and Other. Two-person teams applied the first round of structural codes to the transcripts. As the teams coded according to this codebook, they also captured emerging themes and updated the codebook to reflect these emerging themes so they could be applied systematically in the next round of coding.

During the second round of coding, two-person teams divided the transcripts to review and add more specific and detailed thematic codes according to the codebook. The entire team met regularly to discuss questions or potential coding discrepancies, refine the codebook, and make adjustments. Finally, they synthesized and reported results in relation to the evaluation questions and extracted key quotes to embody reported themes. When applicable or relevant, the team noted significant disparities in results or themes based on type of audience (Tobacco User, Former Tobacco User, Non-Tobacco User, and Administrator).

6 Results

For each subsection of the results, quantitative data are presented first (when applicable), followed by qualitative findings. Survey respondents are identified as “respondents,” and focus group participants, interviewees, or informal discussion participants are all referred to as “participants.”

6.1 Sample Characteristics

6.1.1 Survey Sample Characteristics

Sixty-five percent of the employee population at FS/HAAF responded to either some portion or all of the electronic questionnaire at both baseline ($N = 1,210$) and/or 12-month follow-up ($N = 1,194$). With the exception of Active Duty status, there was no-observed demographic difference between the samples (Table G-4). The follow-up sample had a larger proportion of Active Duty Soldiers (31.6%) when compared to baseline (26.8%, $p < 0.01$).

The survey sample was largely female (64.7% baseline, 67.6% follow-up), non-Active Duty (73.2% baseline, 68.4% follow-up), and clinical (57.4% baseline, 58.2% follow-up). The most common participant age ranges were 35–49 years (43.3% baseline, 42.0% follow-up) and 50–64 years

(30.1% baseline, 30.6% follow-up). The samples were comprised primarily of MEDDAC employees (88.2% baseline, 89.5% follow-up) and clinicians (57.4% baseline, 58.2 follow-up).

The samples in this evaluation were similar to the study population in terms of Active Duty status (population estimate: 28.5% Active Duty Soldiers) and command affiliation (population estimate: 87.0% MEDDAC, 11.3% DENTAC, and 1.6% VETCOM) as presented in Figure F-1. No information on population gender, age, or position type was available to make sample comparisons.

6.1.2 Focus Group Sample Characteristics

The evaluation team conducted focus groups, structured interviews, and informal discussions with 47 employees and 18 patients. The sample distribution is provided in Table G-5. The qualitative data sample was largely Active Duty (56.9%), male (63.1%), and administrative in job function (41.0%). The sample included 21 current tobacco users (32.3%), 29 non-tobacco users (44.6%), 3 former tobacco users (4.6%), and 12 TFC policy administrators (18.5%). Administrators did not participate in any of the groups stratified by tobacco-use status.

6.2 What are Employees' Attitudes, Awareness, and Support Towards the Policy?

6.2.1 Attitudes about Smoking and Workplace Morale

Survey respondents generally expressed negative attitudes about smoking and its effect on workplace morale and productivity. At both baseline and follow-up, approximately two-thirds (66.4%) of respondents agreed or strongly agreed that smoking on or next to campus has a negative effect on public image (Table G-6).

In addition, more than half of employees (51.0%) agreed or strongly agreed that smoking affects workplace morale at baseline and more than three-quarters of employees (77.7%) agreed or strongly agreed that excessive breaks to smoke negatively affect productivity. At 12-month follow-up, these proportion increased significantly ($p < .05$) to 57.5 percent and 82.6 percent, respectively (Table G-6).

During the qualitative discussions, non-tobacco users, administrators, and one former tobacco user expressed several negative views about how tobacco affects the workplace. The most common response was that smoking affects mission readiness, and two participants wanted action from higher Army Leaders (Army Surgeon General and the Army Chief of Staff) to address smoking in the military.

"Smoking to me is a killer in readiness. Something that we have allowed, we have turned a deaf ear to. And I think that leadership, and that's probably from the Chief of Staff of the Army, [needs] to recognize, put more emphasis, just as much emphasis as they put on sexual assault, on these drugs and alcohol abuse." - Non-Tobacco User

"Why isn't that groomed into the fit Soldier? I mean I can't imagine doing PT and smoking." - Administrator

In addition, non-tobacco users believed that, in general, smokers received more break time and that break times were inequitable across tobacco-use status. Non-tobacco users thought that smokers

could not be denied their smoke breaks. Non-tobacco users wanted comparable amounts of time for their own leisure or benefit (such as gym time).

“If I can take that amount of time that smokers smoke during the day and they let me go to the gym that would be equitable treatment and that would be a fair thing because if you time them, I guarantee you throughout the day they gonna spend at least 45 minutes to an hour and a half out there smoking. And I don’t have anything.” – Non-Tobacco User

Smokers reported enjoying the break that smoking provides them and listed several benefits: breaks relieve anger and stress, are calming and relaxing, serve as an alternative to destructive actions, and provide an opportunity for productive and open discussions with colleagues. A few non-tobacco users also said that smoking has a positive effect on their coworkers’ moods.

“Sometimes you need to get away from the customer that you’re dealing with and it doesn’t matter if you smoke or not. You’re with compadres where you can talk over an issue and then go back and attack with a professional manner.”
- Current Tobacco User

“Smoking, that’s their tool or way of getting away from the situation that’s bothering them like their work relations or home relations or relationships...Instead of going out and shooting somebody or jumping on somebody they grab a cigarette and that just calms them down...At the same time, they’re much calmer, they’re easier to work with and deal with.”
– Non-Tobacco User

6.2.2 Familiarity with Policy, Boundaries, and Enforcement

6.2.2.1 Awareness of Policy and Boundaries

Survey data showed that familiarity with the areas on campus where smoking was allowed and not allowed increased from baseline to follow-up. At both points in time, employees were generally more familiar than unfamiliar with these areas, but the extent of familiarity increased over time. Specifically, the percentage of employees that reported being very familiar with these areas increased from 29% at baseline to 49% at 12-month follow-up while the percentage slightly familiar with these areas decreased from 36% to 27%, $\chi^2(4) = 101.5$, $p < 0.001$ (see Table G-7).

For the qualitative evaluation component, interviewers asked participants to describe their knowledge of the TFC policy, including the boundaries, how they learned about it, and how advertising of the policy could be improved in order to gauge knowledge of the policy and identify areas for improvement in policy awareness and information dissemination.

Similar to survey results, most qualitative participants were aware of the policy and its boundaries. However, in at least five different discussions, some respondents did not know about the policy at all or reported that Soldiers were unaware of the policy. Of the participants who were aware of the policy, the majority defined the policy as no smoking on the MEDDAC campus including Winn ACH itself or anything considered hospital property (such as medical facilities, outlying buildings, and parking lots). Some further specified that the boundaries included sidewalks and vehicles in the parking lot and that the policy applied to smokeless tobacco as well. A few respondents were confused about the policy and said the boundaries were not well-defined, or they misunderstood

the policy to be no smoking in Federal buildings or staying 50 feet away from buildings. There was also some uncertainty on whether the policy applied to smokeless tobacco and e-cigarettes.

“As far as right now, it stands there is no smoking at all on the hospital property. Which means that when you turn in this hospital property, all the sidewalks and everything.” – Current Tobacco User

“I don’t think it’s really well-defined. I mean I see signs out there and I would imagine that means so far away from the building, but I don’t really think it’s defined well.” – Current Tobacco User

6.2.2.2 Information Dissemination

The survey did not ask specifically how employees received information about the TFC policy. Focus group participants reported receiving information about the policy through various sources including signage posted around the campus, emails, meetings, APEQS, word of mouth, online surveys, and chain of command. Signage was the primary source informing both patients and employees of the policy, but there were conflicting reports about the visibility. Most participants thought signage was adequate while some thought they should be larger, more visible, or replaced if taken down during construction. Information cards were another way to provide information about the policy to violators. A current tobacco user described the information cards as *“a card so that if you saw someone smoking you hand them one, then you tore half of it off so that they could collect data on how many people were still actually smoking on the campus.”* A few participants said they did not have the cards or did not use them.

“There’s a huge sign when you walk in the hospital. There’s signs as you drive in all the entrances...Signs everywhere. Signs in the parking lot. Signs all over the place.” – Current Tobacco User

“The signs that were posted by the entrance as you come in, they’re gone. When they did the construction and stuff, the signs were gone and so the Soldiers don’t know and then some of them get kind of angry when you tell them you have to go across the street. They say, ‘Well I don’t see any signs.’”
– Non-Tobacco User

6.2.3 General Policy Satisfaction

Survey results indicated that level of satisfaction with the existing TFC policy increased from baseline to follow-up. At baseline, the largest percentage of employees reported being neither dissatisfied nor satisfied with the policy (38%). In contrast, at 12-month follow-up, nearly half of all employees were reportedly very satisfied with the policy (47%), $X^2(4) = 213.3, p < 0.001$ (see Table G-8.). Aggregating data across satisfaction categories (i.e., slightly satisfied and very satisfied), the percentage of employees reporting satisfaction with the policy increased from baseline (34%) to 12-month follow-up (59%). Across smoker status, employees reported a significantly higher mean level of satisfaction with the policy at 12-month follow up ($M_{\text{follow-up}} = 3.72$) compared to baseline ($M_{\text{baseline}} = 3.11, p < .05$).

Level of satisfaction with the TFC policy differed over time as a function of smoker status. Within smoker status, satisfaction increased over time for both non-smokers ($M_{\text{baseline}} = 2.93$ vs $M_{12\text{-month}} = 3.90, p < .05$) and former smokers ($M_{\text{baseline}} = 3.06$ vs $M_{12\text{-month}} = 3.75, p < .05$), but decreased over time for current smokers ($M_{\text{baseline}} = 3.85$ vs $M_{12\text{-month}} = 2.78, p < .05$) (see Figure F-4).

Qualitative results similarly found that satisfaction with the policy was generally dependent upon tobacco-use status; non-tobacco and former tobacco users often expressed positive opinions about the policy while several current tobacco users had negative opinions. Non-tobacco users repeatedly stated liking the policy and appreciating that they are no longer exposed to SHS, and a former smoker stated that that he/she appreciated not being around smoke because *“if it’s not in front of you, you don’t want it.”* Several tobacco users emphasized that although the policy makes tobacco use inconvenient, they support the policy because they understand that others should not have to be unwillingly exposed to tobacco smoke, particularly elderly, patients, and children.

“I don’t feel it’s a bad thing because we have to respect other people, especially in a medical facility.” – Current Tobacco User

“I fully agree with the policy. I think it’s good, even as a smoker I agree with it. I think it is good to pull it away from patients, away from patient flow, away from the kids. But at the same time to fully make a campus smoke-free, tobacco-free, it has its risks, it has its pros and cons.” – Current Tobacco User

“I generally like the policy and I appreciate the fact that those people have to walk across the street to smoke and I think it makes us look like a better organization because of it.” – Non-Tobacco User

There were a few references to dislike of and dissatisfaction with the policy, particularly among current tobacco users. Several participants felt that the policy infringed on their rights, discriminated against smokers, was either non-enforceable or difficult to enforce, and inconvenienced smokers by forcing them to leave campus to smoke. Additionally, some participants raised issues about restricting the right of Soldiers to smoke, whether Active or retired, when they have served their country.

“I know that these people that are sitting over across from me smoke and they can’t smoke now and the reason I’m having problems is they’re pissed off when they come to work and they’re already pissed off because of this policy so they’re affecting everybody else’s performance as far as job wise because they come into work mad.” – Current Tobacco User

“My opinion is it’s discrimination against smokers. You know. We’re doing something that’s not illegal.” – Current Tobacco User

While non-tobacco users and administrators generally accepted the policy, they mentioned that the policy makes their tobacco-using colleagues irritable and more difficult to work with.

6.3 What Effects has the Policy had on Employees?

Both survey and focus groups asked about a variety of effects that the policy had on employees. The survey gathered information regarding anticipated effects such as SHS exposure and utilization of cessation services, while the focus groups asked about some of these concepts but probed further into some unanticipated effects of the policy, particularly among tobacco users.

6.3.1 Secondhand Smoke Knowledge, Attitudes, and Exposure

6.3.1.1 Knowledge of SHS

Survey results showed that knowledge of the health issues caused by SHS ranged from moderate to high. At baseline and 12-month follow-up, most employees agreed that breathing SHS could cause a variety of health problems, which include lung cancer, respiratory problems in children, ear infections in children, heart disease, vision problems, sudden infant death syndrome, colon cancer, skin irritation, and health problems among pregnant women and fetuses (see Table G-9). The one exception was that only 28% of employees at both baseline and 12-month follow-up agreed that SHS could cause sickle cell anemia (which was added as a distractor to help understand potential positive response bias). The percentage of employees who correctly agreed that SHS could cause health problems increased significantly from baseline to 12-month follow-up for the following problems: ear infections in children (67% vs 71%, $X^2(2) = 7.42, p < .05$), sudden infant death syndrome (58% vs 60%, $X^2(2) = 9.80, p < .01$), and skin irritation (72% vs 76%, $X^2(2) = 8.52, p < .05$) (see Table G-9). Correct awareness of the other conditions was high at baseline, which left limited opportunities for improvement in knowledge over time.

6.3.1.2 Perceived Harm of SHS

Survey results also revealed that respondents' level of perceived harm of SHS was generally high and did not differ significantly from baseline to 12-month follow-up. The SHS was perceived as being very harmful by almost 70% of employees at baseline and follow-up. Moreover, approximately 80% of employees agreed that exposure to SHS is very dangerous and that non-smokers should breathe air that is free of tobacco smoke (see Table G-10).

A consistent theme emerging from qualitative data was an overall agreement between non-tobacco users and current tobacco users that non-smokers should not be exposed to SHS and that reducing SHS exposure among patients, elderly, children, and so forth is positive (see Table G-11 for quotes on "Effects").

6.3.1.3 Exposure to SHS

Survey data measured changes in SHS exposure in the workplace for MEDDAC/DENTAC/VETCOM employees, and qualitative data elicited information about changes in SHS exposure that survey data did not capture. Participants were not directly asked about SHS exposure in discussions; yet, this theme emerged as an effect of the policy and a reason for policy satisfaction described previously (section 6.2.3).

Per survey findings, exposure to SHS generally decreased over time. The percentage of employees who reported being exposed within the past 7 work days decreased from 64% to 47% from baseline to 12-month follow-up, $X^2(1) = 63.4, p < .001$. For those employees who were exposed to SHS, the average number of work days exposed decreased significantly over time, from 3.89 days at baseline ($SD = 2.11$) to 3.60 days at 12-month follow-up ($SD = 2.07$), $t(1,253) = 2.51, p < .05$. However, no significant decrease over time was observed with regard to the average number of hours exposed (see Table G-12). In addition to being less exposed to SHS over time, employees reported being less bothered by it. As shown in Table G-12, the percentage of employees reportedly bothered by SHS in the workplace over time decreased from 50% at baseline to 44% at 12-month follow-up, $X^2(1) = 8.14, p < .01$.

Those who reported being bothered by SHS were asked follow-on questions regarding the ways in which they were bothered, and they were allowed to select one or more choices from a list. At both baseline and follow-up, the most common responses were “I have sensitivity to the smell of smoke on others” (baseline: 80.7%, follow-up: 81.5%), “I have physical reactions” (baseline: 49.0%, follow-up: 52.3%), and “I feel the need to get away from my work area for a breath of fresh air (baseline: 47.4%, follow-up: 53.1%). Though respondents reported being less bothered by SHS at follow-up, those who were bothered were more likely to report “I have difficulty concentrating on my work because I am annoyed by the presence of SHS” ($X^2(1) = 15.0, p < .001$), “I feel that my productivity at work is negatively affected by the presence of SHS” ($X^2(1) = 6.85, p < .001$), and “Other” ($X^2(1) = 13.9, p < .001$) at follow-up than at baseline. There were no-observed differences from baseline to follow-up in the proportion of respondents indicating they have physical reactions, have sensitivity to the smell of smoke on others, have medical or health complications negatively affected by SHS, have the need to get away from the work area to get a breath of fresh air, have difficulty sleeping at night due to smoke-related symptoms, feel uncomfortable asking people who smoke not to smoke, and sense tensions between smokers and nonsmokers.

A decrease in SHS exposure was observed across all demographic characteristics, but the magnitude of the difference varied within demographic subgroups. Figure F-5 depicts the stratification of this difference by demographic characteristics. All subgroups of sex and Active Duty status experienced significant reductions in SHS exposure over time. When stratified by age group, the percentage reporting SHS exposure was significantly higher at baseline than follow-up for the 25–34 year, 35–49 year, and 50–64 year age groups but not for the 18–24 year or the 65 and older age groups. When stratified by position, the percentage was significantly higher at baseline for administrative and clinical positions ($p < .001$) but not for service and other positions. Finally, when stratified by command affiliation, the percentage was significantly higher at baseline for employees affiliated with DENTAC and MEDDAC ($p < .01$) but not for those affiliated with VETCOM.

A multiple logistic regression analysis was conducted to examine whether the observed increase over time in exposure to SHS during the past 7 work days remained after taking into account differences in demographic characteristics. The results in Table G-13 show that the odds of reportedly being exposed to SHS during the past 7 work days were lower for smoking employees than for non-smoking employees, $B = -.35, SE = .13, p < .01, OR = .70$. After taking into account all differences in demographic characteristics, the odds of reportedly being exposed to SHS during the past 7 work days were 2 times greater at baseline than at 12-month follow-up, $B = .72, SE = .09, p < .001, OR = 2.06$.

Differences in SHS exposure were also observed with respect to the average number of days exposed. Overall, the average number of days exposed to SHS during the past 7 work days was significantly greater at baseline ($M = 2.5$) than at 12-month follow-up ($M = 1.7, p < .001$). This difference was observed across most, but not all, demographic characteristics. Figure F-6 depicts the stratification of this difference by demographic characteristics. When stratified by sex and Active Duty status, the average number of days exposed to SHS during the past 7 work days was significantly higher at baseline than at 12-month follow-up for all subgroups ($p < .001$). When stratified by age group, the average number of days exposed was significantly higher at baseline for the 25–34 year, 35–49 year, and 50–64 year age groups but not for the 18–24 year or the 65 and older age groups. When stratified by position, the average number of days exposed was significantly higher at baseline for administration, clinician, and other positions ($p < .001$) but not for service positions. When stratified by command affiliation, the average number of days exposed was significantly higher at baseline for employees affiliated with MEDDAC ($p < .01$) but not for those affiliated with DENTAC or VETCOM. Finally, when stratified by smoker status, the average

number of days exposed was significantly higher at baseline for former smokers and non-smokers ($p < .05$) but not for current smokers.

Qualitative findings also suggested the policy reduced exposure to SHS, both among employees themselves and the patients the medical campuses serve. Several non-tobacco users noted a decrease in SHS exposure since the TFC policy began. A current tobacco user said that the policy, *“[keeps] it away from the elderly patients that have chosen not to smoke or have chosen to quit smoking. It’s keeping it away from the kids that shouldn’t be exposed to begin with.”*

Though participants commonly reported that SHS exposure has decreased on the MTF campus, tobacco users noted that SHS exposure has now shifted to other areas, just not directly outside the hospital. As one tobacco user explained, *“You can go smoke on the softball field where people are trying to exercise. So give them the secondhand smoke.”*

6.3.2 Tobacco-use Habits

Because one of the main goals of TFC policies is to decrease tobacco-use prevalence, both survey and qualitative data sought to determine the policy’s effect on tobacco-use habits (see Table G-11 for quotes on “Effects”).

6.3.2.1 Tobacco-use Prevalence

The frequency of cigarette and smokeless tobacco use was assessed at baseline and 12-month follow-up via the online questionnaires. Using the response options of every day, some days, or not at all, the majority of employees reported not at all using cigarettes at baseline (85%) and at 12-month follow-up (87%). As shown in Table G-14, the prevalence of cigarette use did not differ significantly over time. The frequency of smokeless tobacco use was also assessed at baseline and 12-month follow-up. Using the response options of everyday, some days, or not at all, the majority of employees reported not at all using smokeless tobacco at baseline (96%) and at 12-month follow-up (96%), which did not differ significantly.

6.3.2.2 Policy Impact on Tobacco-use Habits

When asked directly, “How did the tobacco-free campus policy impact your tobacco use?” on the 12-month follow-up questionnaire, about half of the tobacco-using employees reported no change. Because these employees could select more than one response option, the following percentages are not necessarily mutually exclusive. The largest impact was observed for tobacco use at work; wherein, 23% of tobacco-using employees reported that the policy resulted in their decreasing tobacco use at work. Notably, the second most commonly reported impact was on tobacco use at home; wherein, 9% of tobacco-using employees reported that the policy resulted in their increasing use. The policy also resulted in 8% of tobacco-using employees reporting greater motivation to quit, but 6% reporting less motivation in doing so. Finally, the policy impacted the smallest percentage of tobacco-using employees with regard to increasing tobacco use at work (6%), decreasing tobacco use at home (5%), quitting tobacco (4%), and switching from cigarettes to smokeless tobacco (3%) (see Table G-15).

The numbers of cigarettes smoked at work and outside of work were also directly assessed at baseline and 12-month follow-up among current smokers to examine any observed changes over time. Translating open responses to response categories of 5 or fewer cigarettes, 6–10 cigarettes, or 11 or more cigarettes, the majority of smokers reported smoking 5 or fewer cigarettes at work

(72% at baseline and 77% at 12-month follow-up) and 5 or fewer cigarettes outside of work (41% at baseline and 45% at 12-month follow-up). Yet, as shown in Table G-16, these percentages did not differ significantly over time.

To further explore the impact of the TFC policy on tobacco use at work, the number of cigarettes reportedly smoked at work on an average day was linearly regressed on demographic characteristics and time of data collection. The results in Table G-17 show that male employees smoked about two more cigarettes on an average work day than did female employees, $B = 2.12$, $B = .18$, $SE = .74$, $t(1) = 2.88$, $p < .01$. In addition, those in *Other* positions smoked just over three more cigarettes on an average work day than did those in Clinician positions, $B = 3.37$, $B = .18$, $SE = 1.18$, $t(1) = 2.86$, $p < .01$. However, after taking into account all differences in demographic characteristics, results showed that employees smoked the same number of cigarettes at baseline as they did at 12-month follow-up.

Similar to reported survey findings, qualitative results revealed mixed responses when current tobacco users were asked how the policy affected their total daily consumption of tobacco. Three smokers said they decreased their total daily consumption as a result of the policy, mainly because they did not want to walk across the street. Few smokers indicated their consumption had increased since the policy was implemented. These respondents attributed their increased consumption to a reluctance to take as many breaks during duty hours and being unsure of when their next smoking opportunity would be. At least three individuals said specifically that the policy had not changed their total daily cigarette consumption in any way.

The AIPH team probed focus group and interviewed participants to determine if any changes in tobacco-use habits occurred that were not elicited by survey data. The team explored effects on location of tobacco use, patterns of tobacco use, types of tobacco used, and effects of the policy on smokeless tobacco users (see Table G-11 for quotes on “Effects”).

Effect on Location of Tobacco Use. One of the most common effects reported among qualitative-evaluation-component participants was a change in the location of tobacco use. Participants most commonly mentioned that they now had to walk across the street to smoke. Some other changes in smoking location included that employees now used tobacco in the National Guard area, the WTU area, and the softball field. Participants also reported smoking in cars while driving and patients smoking in bathrooms.

Effect on Pattern of Tobacco Use. Some current tobacco users said the policy had affected their tobacco use during the workday and had helped them decrease consumption. It was unclear if this affected their overall daily consumption of tobacco.

Effect on Types of Tobacco. Tobacco users did not report changing tobacco types (i.e., smoking to smokeless or vice versa) as a result of the policy.

Effect on Smokeless Tobacco Users. Smokeless tobacco users had different reactions to the policy. Due to smokeless tobacco, use is less visible and less detectable; a couple smokeless tobacco users said that the TFC policy did not affect them because they still used their tobacco discreetly. One smokeless tobacco user said he took longer breaks to go off campus to use his chew.

6.3.3 Motivation to Quit and Utilization of Cessation Activities

An additional goal of TFC policies is to increase cessation among tobacco users. As a result, both survey and qualitative data sought to determine the policy's effect on motivation to quit and cessation.

6.3.3.1 Motivation to Quit

Tobacco users' motivation to quit using tobacco products was assessed over time and varied depending on how motivation was assessed. Users were asked: (1) whether they wanted to stop using these products, (2) whether they were planning to quit within the next 30 days, and (3) whether they were contemplating quitting within the next 6 months. The majority of responding tobacco users did not want to stop using or did not know if they wanted to stop using tobacco products. Approximately one-third of users indicated that they wanted to stop using tobacco products at baseline (37%) and 12-month follow-up (35%), and these percentages did not differ significantly over time. Just over half of responding tobacco users indicated that they were contemplating quitting in the next 6 months at baseline (51%) and 12-month follow-up (56%), but these percentages did not differ significantly over time. However, inconsistent with expectations, when asked whether they were planning to quit within the next 30 days, the percentage of tobacco users indicating that they wanted to do so at baseline (35%) was marginally but not significantly, higher than the percentage at 12-month follow-up (23%), $\chi^2(2) = 5.80$, $p = .06$ (see Table G-18).

Tobacco users' attempts to quit smoking were also assessed over time. Nearly half (45%) of all responding tobacco users reported that they stopped using tobacco products for 1 day or longer in an attempt to quit smoking. Again, this percentage did not differ significantly between baseline and 12-month follow-up. (see Table G-18).

Similar to survey findings, focus group and interview findings revealed the vast majority of tobacco users believed the policy had no effect on them quitting or having a desire to quit. Two participants felt that the policy made it easier for them to not smoke during the day when they were already motivated to quit. One tobacco user said, *"I've been trying to quit for a while so it helps me out to where I don't smoke at all during the daytime."* Participants identified motivating factors for quitting and obstacles to quitting (see Table G-11 for quotes on "Effects").

The AIPH qualitative team further probed respondents on what factors might help tobacco users increase their motivation to quit. The following is a summary of themes that emerged from their responses, some of which are further broken down by participant type (tobacco user or non-tobacco user).

Personal Will. Many participants (current, former, and non-tobacco users) believed that the decision to quit was based solely on personal will and could not be influenced by a policy or anyone but the individual themselves.

Health Concerns. Tobacco users most often cited fitness concerns and maximizing run times as motivators to quit smoking; whereas, non-tobacco users thought tobacco users would be motivated to quit by health scares, cancer, or death for either themselves or a Family member.

Health Issues Tobacco Users versus Non-tobacco Users Thought Would Motivate Smokers to Quit.

Tobacco Users	Non-Tobacco Users
- Improved run times - Fitness goals - General health concerns or a healthier lifestyle - Pregnancy	- Death - Cancer (especially throat, lung) - Family history of health complications from smoking (e.g. asthma) - Virility

Finances. Current, former, and non-tobacco users from nine of the discussions said finances were a major motivator to quit or a reason why smokers had actually quit. One current tobacco user said he had cut down on smoking after seeing the calculations in a cessation class for how much he was spending per year on cigarettes. Some non-tobacco users believed that tobacco users would buy tobacco products even when they may not be able to afford them. One participant mentioned increased cost as the only effective strategy to increase quitting and that a policy would not be effective.

Graphic Ads. Participants in four discussions, not including current or former tobacco users, thought that graphic ads or health-related scare tactics would be effective ways to motivate smokers to quit. They described advertisements they had seen on public television and wanted those to be shown on the hospital television. One former smoker explained that graphic ads are not useful because current smokers already realize that tobacco use is a health risk.

Family. Kids, pregnancy, and Family pressure were reasons for some smokers (or smokers that participants knew) to reduce or quit smoking.

The AIPH qualitative team additionally probed respondents on the obstacles tobacco users face when trying to quit. Both tobacco and non-tobacco groups indicated a lack of desire to quit or the fact that tobacco use is an enjoyable habit prevented smokers from quitting. For example, one tobacco user explained, “*I’m not gonna lie. I actually enjoy smoking. I really do.*” At least six non-tobacco or administrators discussions identified stress as a major obstacle to quitting. Current tobacco users gave other obstacles to quitting (which included the fact that many of their peers smoke), cessation is difficult to access, the campus policy does not allow for e-cigarette use, negative side effects of cessation medications(such as Chantix®), and the burden of deployment and family separation. (Chantix® is a registered trademark of Pfizer, Inc.)

6.3.3.2 Utilization of Cessation Services and Pharmaceuticals to Quit

The provision of cessation services is a major component of successful tobacco-free policies. As a result, the AIPH team sought to determine the utilization of cessation services and knowledge of cessation services.

As shown in Figure F-7, respondents who indicated any quit-attempt in the past 12 months most commonly reported using nothing to assist with their attempt (baseline: 44.8%, follow-up: 51.8%). There was no significant difference in the proportion of respondents using any assistance over time. At baseline, respondents most commonly utilized medication (34.5%), classes (20.7%), counseling (16.1%) and self-help (16.1%) to assist with their quit-attempts. At follow-up, respondents most

commonly utilized medication (31.1%), e-cigarettes (15.1%), and classes (11.8%) for assistance. A significantly smaller percentage of respondents reported using counseling and self-help at follow-up than baseline, $X^2(1) = 7.000$, $p < .01$.

Though there were no-observed increases in cessation service utilization from baseline to 12-month follow-up, survey results revealed there were significant differences in respondents' knowledge regarding insurance coverage for treatment to quit using tobacco over time ($X^2(2) = 71.070$, $p < .001$). Results suggest the proportion of respondents who believed their insurance-covered treatment to quit using tobacco over time increased (baseline: 31.1%, follow-up: 47.8%), and the proportion who didn't know decreased (baseline: 59.6%, follow-up: 47.3%) (see Table G-19).

The TFC policy leadership was additionally interested in the extent to which employees were familiar with the Tobacco-Cessation Program, the perceived cost of the program, and what services their employees believed were available through the Winn ACH Cessation Program. As a result, on the 12-month survey, the AIPH asked respondents a series of questions about the Winn ACH Cessation Program.

A total of 13.4% of respondents indicated that they were not at all aware of the Tobacco-Cessation Clinic, 38.8% were slightly to somewhat aware, and 47.7% were moderately to very aware. Tobacco users were no more or less aware of the clinic than non-tobacco users. Respondents most commonly (and correctly) believed that cessation-clinic participants do not pay any fee for services or medication (87.2%). As shown in Figure G-8, respondents most commonly believed that the Tobacco-Cessation Clinic offered the Tricare Smoking Quit Line (86.9%), the Georgia tobacco quit line (64.9%), and smokefree.gov (64.5%). Less commonly selected were the United Healthcare Tobacco-Cessation Wellness Coaching Program (53.6%), Tobacco-cessation classes at Liberty Regional Medical Center (53.5%), facilitated group counseling at Tuttle Library (51.9%), and Quitnet[®].com (48.1%). (Quitnet[®] is a registered trademark of QuitNet.com, Inc.)

Qualitative data suggested participants' main concern with cessation services was that they were bundled together, and tobacco users did not want to be forced to use all the components of the cessation services. In particular, tobacco users wanted medications without being required to attend classes. Some thought bundling these services together made it harder to quit.

Participants had mixed opinions about tobacco-cessation medications. Participants often mentioned Chantix, and some thought it was effective for them, while others didn't like it or had adverse side effects (i.e., bizarre dreams, upset stomach). Participants mentioned "the patch" at least five times, but no one said they had tried it or that it had influenced quitting or attempts to quit. Nicotine gum was mentioned less often but desired as a potential option.

"I started taking Chantix, I took it maybe two weeks and that was it. Really at that two week period I couldn't take it anymore because my dreams were just so bad and the nightmares but I was so ready to stop I actually stopped and I stopped for three years." – Current Tobacco User

6.3.4 Health Outcomes

Survey data measured self-reported smoking-related health conditions including: sick days taken due to respiratory illness, heart attack, emphysema, stroke, chronic bronchitis, and multiple types of cancers. The AIPH team refrained from asking participants qualitative questions on long-term health because focus groups were conducted only 1 year after policy implementation. However, a

few participants volunteered information regarding the policy's impact on employees' health. To examine the effect of the TFC policy on health-related absenteeism, employees were asked to indicate the number of sick days taken within the past 12 months as a result of respiratory illness. As shown in Table G-20, 21% and 18% of employees reported taking at least 1 sick day at baseline and 12-month follow-up respectively. There was no significant difference in health-related absenteeism within the past 12-month period from baseline to follow-up.

Further exploration of the effect the policy had on health-related absenteeism focused on a constructed categorical summation of sick days taken due to respiratory illness in the past 12 months. This was due to a violation of the normality assumption for the continuous version of sick days taken. A multiple logistic regression was conducted to test for differences in whether or not any sick days were taken, after controlling for demographic characteristics. The results of this analysis, displayed in Table G-21, show that the odds of taking sick days as a result of respiratory illness were 1.39 times greater for male employees than female employees ($B = -.34$, $SE = .13$, $p < .01$, $OR = .72$) and 1.72 times greater for Active Duty employees compared to non-Active Duty employees ($B = -.55$, $SE = .16$, $p < .001$, $OR = .58$). Unexpectedly, the odds of taking sick days as a result of respiratory illness were lower for current smokers than for nonsmokers, $B = -.57$, $SE = .19$, $p < .01$, $OR = .57$. Finally, after taking into account all differences in demographic characteristics, the odds of taking sick days due to respiratory illness did not differ between baseline and 12-month follow-up.

To examine the effect of the policy on long-term health outcomes, respondents reported whether or not they had ever been diagnosed with various smoking-related health conditions at baseline and 12-month follow-up. Health condition diagnoses included heart attack, emphysema, stroke, chronic bronchitis, and multiple types of cancers. For most health conditions, no employees reported being diagnosed with these adverse health conditions which included lung cancer, lip cancer, oral cavity cancer, pharynx cancer, larynx cancer, pancreatic cancer, and bladder cancer. For two health conditions (esophageal cancer and kidney cancer), too few employees reported diagnosis to satisfy statistical analytical assumptions to make comparisons over time. Chi-square tests were conducted on the percentage of employees who reported being diagnosed with any of the remaining health conditions over time. As shown in Table G-22, the percentage of employees who reported being diagnosed with a heart attack, emphysema, stroke, or cervical cancer did not differ from baseline to 12-month follow-up. However, a significantly higher percentage of employees reported being diagnosed with chronic bronchitis at baseline (7%) than at 12-month follow-up (5%), $X^2(1) = 4.32$, $p < .05$.

A multiple logistic-regression analysis was conducted to test for differences in chronic bronchitis diagnoses over time after taking into account demographic characteristics. The results of this analysis are in Table G-23 and show that the odds of employees reporting ever being diagnosed with chronic bronchitis were nearly 8 times greater for those age 65 years and older compared to those age 18–24 years, $B = 2.05$, $SE = .84$, $p < .05$, $OR = 7.73$, 2 times greater for those in an Administration position compared to those in a Clinician position, $B = .72$, $SE = .19$, $p < .001$, $OR = 2.05$ and 1.75 times greater for those affiliated with DENTAC compared to those affiliated with MEDDAC, $B = .56$, $SE = .27$, $p < .05$, $OR = 1.75$. Finally, after taking into account all differences in demographic characteristics, the odds of reporting a chronic bronchitis diagnosis were 1.45 times greater at baseline than at 12-month follow-up, $B = .37$, $SE = .18$, $p < .05$, $OR = 1.45$.

As previously stated, the AIPH did not ask qualitative participants questions regarding the impact the policy had on employees' health outcomes. However, a few participants referenced positive health effects of the policy. Two participants believed the policy had an indirect positive effect on

their health because it required tobacco users to walk further in order to utilize tobacco products (see Table G-11 for quotes on “Effects”).

6.3.5 Other Effects

In addition to the effects of the policy described in previous sections, several additional effects of the policy emerged during the focus groups, interviews, and informal discussions. The following describes key themes discussed during focus groups, interviews, and informal discussions.

6.3.5.1 Effect on Break Times

Participants mentioned several effects of the TFC policy on productivity and work-related issues. Results showed the most frequent response from current and former tobacco users was that the policy had no effect at all. However, both current and non-tobacco users believe that the policy increased the length of time utilized for smoke breaks. Furthermore, smokers said they lost opportunities to socialize and interact with other co-workers in the gazebos.

“I wouldn’t say it’s really impacted work at all.” – Current Tobacco User

“We used to meet other people... it was a good opportunity for us to get out there and say some of the stuff that you don’t want to say in front of your patients and then just de-stress. Whether you were a smoker or not.” – Current Tobacco User

Participants in five non-tobacco discussions and two current tobacco discussions said that smokers were taking longer breaks due to the policy. Though there was discussion about break duration, no themes emerged regarding the policy’s impact on the frequency of breaks.

6.3.5.2 Safety Effects

Several participants mentioned safety concerns as an effect of the policy, which included danger associated with crossing the street, fire hazards associated with ineffective cigarette butt removal, and hazardous weather conditions when using tobacco (see Table G-11 for quotes on “Effects”).

Crossing the Street. Of those participants who referenced crossing the street as a safety concern, most were tobacco users. There were many references of perceived danger associated with crossing the street to smoke, particularly when there were no crosswalks. A couple participants mentioned seeing individuals nearly getting hit by moving vehicles, and one mentioned actually seeing someone get hit by a moving vehicle. Several participants suggested crosswalks or designated smoking areas in non-visible areas of the MTF (e.g., the loading docks) to mitigate concerns.

Fire Hazards. Of those participants who referenced fire hazards as a safety concern, most were non-tobacco users. Several participants noted that the lack of disposal opportunities for cigarette butts presented a fire hazard, particularly in the dry climate, in grassy areas, and/or in areas that wood posts could catch fire. A couple participants noted that they or the fire department had to put out fires as a result of improper cigarette disposal now that there was no smoking on campus.

Hazardous Weather Conditions. Many participants, particularly tobacco users, additionally noted that they had to brave the elements (i.e., rain, heat, lightning) to use tobacco, which they perceived as dangerous. A couple participants mentioned that having to go outside in the Georgia heat was a

deterrent to their smoking but suggested that this was the case before the policy was implemented as well.

6.3.5.3 Effect on Cigarette Butts

The participants had mixed feelings about the effects the policy had on cigarette butts. Some participants commented they didn't see cigarette butts after the implementation of the TFC policy. Other participants mentioned seeing an increased amount of cigarette butts or seeing cigarette butts in different areas due to lack of disposal vesicles. The Soldier(s) responsible for picking up the cigarettes are very bothered because it is painful bending over to pick them up and "gross" because they don't have gloves to wear during clean-up. Participants further mentioned that lack of effective cigarette butt removal can contribute to safety hazards, as presented in Section 6.5.3.2 (see Table G-11 for quotes on "Effects").

6.3.5.4 Effect on Visibility of Smokers

Participants said there was increased visibility of smokers around the hospital's perimeters, which contributed to a bad image for the hospital, plus increased visibility of cigarette butts. Smokers disliked that they felt subject to increased visibility in their new smoking location as a result of the policy. One smoker said he now stood out as a smoker even though historically his co-workers were unaware of his smoking status, and a non-tobacco user noted that he/she was more aware of the smokers now.

"It makes the hospital look really bad because you have people standing in the ditch lines smoking cigarettes in front of the hospital...If you walk over there where everybody smokes, there's cigarette butts all over the place." – Current Tobacco User

6.3.5.5 Effect on Smokers' Perceptions of Marginalization and Stigmatization

The TFC policy made current tobacco users feel stigmatized for their tobacco use. A couple of non-tobacco users and a former tobacco user were sympathetic to how smokers might feel marginalized by the policy and agreed that tobacco users should not have to feel stigmatized or overly inconvenienced by their tobacco use.

"I'm not doing anything illegal. Why should I have to hide like I'm some kind of piece of trash?" – Current Tobacco User

"This is a big enough campus where you can put it somewhere where the smoker doesn't feel like they're being so persecuted that they have to walk a mile and a half to have a cigarette but at the same time you don't really have it around patients." – Former Tobacco User

Participants often compared tobacco use to other unhealthy behaviors to demonstrate the perceived unfairness of limiting tobacco use but not other unhealthy behaviors such as unhealthy eating, alcohol abuse, domestic violence, and traffic violations.

"It's just a double standard because ... that's the first thing that goes when we're killing ourselves by smoking. But you have people going to the chow hall and eating 12 pounds of grease and having a heart attack." – Current Tobacco User

6.4 To What Extent are Employees Complying with the Policy and How Effective are Enforcement Efforts?

To address this evaluation question, the survey data provided an estimate of how many policy violations were occurring. The qualitative data provided more descriptive detail for when and where the violations were occurring, how the policy was enforced in practice, and how the information tools were being utilized to support enforcement.

6.4.1 Policy Violations

The 12-month follow-up questionnaire asked respondents to estimate the number of TFC policy violations they had observed since July 2012. The most common response was none (40%), followed by 1–5 people (35%). Approximately 15% of respondents had seen 11 or more violations of the policy since it was implemented (Figure F-9).

In contrast to the survey findings, most qualitative component participants said policy violations occur daily and identified construction workers as frequent violators of the policy. Patients and veterans/retirees were mentioned as violators of the policy, and some of the tobacco users mentioned that they themselves violate the policy. Participants also reported that violations often occur in vehicles in the parking lot and along the campus perimeter since people don't want to walk across the street or were unsure of the boundaries.

Participants thought most people knew the policy but chose to violate it, although patients or visitors who were new to the campus may genuinely be unaware of the policy. They thought that because there was no consequence to violating the policy, there was little incentive to adhere to it.

“Every day, we could walk outside right now and someone is standing right on the sidewalk, by the eye clinic, where that little sign is and they're smoking a cigarette. Whether it be a patient or family member or someone visiting.”

– Current Tobacco User

“When I pull in I have a cigarette. I sit in my truck and then I'll go in to my appointment...I really don't care. I think it's, you know, I'm in my truck. Nobody else is around me. I don't see anything wrong with it.” – Current Tobacco User

6.4.2 Policy Enforcement

Focus group, interview, and discussion participants reported mostly peaceful self-regulation of the policy without confrontation. A typical enforcement effort consisted of someone politely telling a violator that the campus is tobacco free while pointing to a sign or answering questions about where the violator could smoke. When met with resistance after a simple enforcement attempt, the majority of participants did not attempt further interactions with the violator.

There were mixed replies with regard to participants' comfort level enforcing the policy. Most participants felt it was simple to enforce while some expressed discomfort. Military rank, fear of backlash, and concern for enforcing the policy when the violator was going through a hard time (e.g, a parent who had just lost a newborn) were the main reasons for reluctance to enforce the policy. A few participants also mentioned that they choose not to approach older smokers or veterans about violating the policy since they are “set in their ways.” Military rank was an issue

because those of lower ranks were either uncomfortable confronting those of higher ranks or were not taken seriously by those of higher ranks.

“I don’t think that everybody is that comfortable with approaching everyone with this.” – Administrator

“Rank helps a lot...Rank probably does... help with the comfort level...if I say something, they’re like, oh you’re just a specialist...Even though, I am right and they’re wrong but... it’s still the point when I walk away, they’ll just do it again.” – Non-Tobacco User

Most tobacco users seemed receptive to the policy and said they would not violate it but would be amenable to enforcement efforts if they were hypothetically violating the policy. Some tobacco users chose to self-disclose that they themselves were smokers when confronting violators while others who did not agree with the policy said they chose not to confront violators at all.

6.4.3 Enforcement Tools

According to participants (i.e., focus groups, interviews, and discussions), the policy is primarily enforced through signage, word of mouth, and distribution of information cards that explain the policy and provide cessation resources. A perforated half of the information card is turned in to staff duty to track violations.

Participants praised signage as a non-confrontational enforcement tool. In many cases, participants requested additional signage in various locations such as in construction areas and around the perimeter. Participants often reported pointing to signs as an effective way to inform violators of the policy and said that the visibility of signs influenced compliance.

“In theory, the concept really works because you have the signage out there and people kind of adhere to what you have posted and if you do see someone who doesn’t do it you kind of point to the sign and they kind of adhere to that.” – Administrator

According to participants, the information cards served a variety of purposes: (1) they are a non-confrontational way to communicate the policy to people who are violating it, (2) they inform people of the policy, (3) they provide information on tobacco-cessation resources, and (4) they track the violations that occur.

However, some participants were not aware of the information cards at all or expressed confusion regarding their purpose. Misconceptions included thinking the card was a ticket or a disciplinary write-up. Some participants reported not using the cards because violators responded to a verbal reminder of the policy or because they were then expected to get information about the violator and turn it in.

“A little card you can give them to let them know about programs we have for smoking cessation and things like that. And, you know, try to not make it a dramatic event but, but let them know, hey, this; this is not acceptable or not appropriate.” – Administrator

6.5 What Do Employees Want in Their Workplace Tobacco Policy and What Suggestions Do They Have for the TFC Policy at FS/HAAF Medical Campuses?

Survey respondents were polled for their opinions on where tobacco use should or should not be allowed as well as whether they wanted the strength of the existing policy to change. The AIPH asked qualitative participants for their recommendations to improve awareness and enforcement of the policy, feedback on where they thought tobacco use should and should not be allowed, and feedback on cessation services.

6.5.1 Perceptions of Where Tobacco Use Should and Should Not Be Allowed

At both baseline and 12-month follow-up, respondents indicated where they believed tobacco use should be allowed (allowed in all areas, allowed in some areas, not allowed at all, and don't know) and whether they preferred a stronger workplace tobacco policy, a weaker workplace tobacco policy, no change, or if they didn't know/were not sure.

Very few respondents at both time periods (1.5% at baseline, 1.9% at 12-month follow-up) believed that tobacco use should be allowed in all areas on the medical campus. There were significant changes ($p < .001$) in perceptions from baseline to follow-up such that there was an increase in the proportion of respondents who believed tobacco use should not be allowed at all (42.9% at baseline compared to 58.0% at follow-up) and a decrease in the proportion of respondents who believed tobacco use should be allowed in some areas (50.5% at baseline compared to 36.5% at follow-up) over time (see Table 24). Figure F-10 depicts differences in perceptions of where respondents believed tobacco use should be allowed on the medical campus by tobacco-use status (non-user, former user, current user). Although tobacco users and former users reported that tobacco use should be allowed in some areas at greater frequencies compared to nonusers at both baseline and follow-up, all three groups experienced an increase in the percentage of respondents who believed tobacco use should not be allowed at all on campus. The observed increase in the percentage of respondents believing tobacco use should not be allowed at all from baseline to follow-up was not moderated by smoking status. Additionally, there was a decrease in the percentage of respondents who believed tobacco use should be allowed in some areas over time.

Reflecting on the strength of the policy, at baseline, more than half of respondents (52.6%) indicated wanting a stronger workplace tobacco policy, less than 1% reported wanting a weaker policy, 36.7% wanted no change, and 9.9% didn't know or weren't sure. At follow-up, the distribution of responses differed significantly from those at baseline ($p < .001$); after the TFC policy was implemented, 29.7% of respondents wanted a stronger policy, 15.1% wanted a weaker policy, 44.5% wanted no change, and 10.7% didn't know or were not sure (see Table G-24). Findings showed fewer people wanted a stronger policy and more people wanted either no-change or a weaker policy after the medical 100% TFC policy was implemented.

Though survey data suggested at follow-up that most employees (58.0%) believed smoking should not be allowed at all on campus, qualitative discussions revealed that several tobacco users wanted a designated smoking area to return to campus, and many non-tobacco users were not opposed. Smokers were amenable to a TFC as long as they had one designated area to smoke. Many non-tobacco users were not opposed to having some sort of designated area away from patient flow and buildings so long as they were not exposed themselves. Participants said designated areas would appease smokers, help with compliance and enforcement, reduce safety hazards, and provide a receptacle for cigarette butts.

"I will say that the, you know, smoke-free campuses and things along those lines, that's a good idea. It really is. As long as there is still, like, you know, one place to go smoke." – Current Tobacco User

"I can choose myself to not go around a smoking area." – Non-Tobacco User

Gazebos were often associated with designated smoking areas, and their removal from the medical campus helped indicate a smoke-free area. Once they were removed, it was harder for patients who had hospital grounds privileges to smoke because staff could not escort them off the property. Gazebos are also known as "smoking gazebos," "designated smoking areas," or "smoking shacks." It was difficult to break the association between smoking and the gazebos for the gazebos on the installation that had not been removed.

Smokers liked the gazebos and perceived them as beneficial by keeping SHS away from others in a centralized location. In addition, the gazebos provided receptacles for butts, were acceptable and accessible location for patients to smoke, and decreased the visibility of smokers. Nonsmokers complained about not being able to utilize the gazebos for lunch or breaks because of the smoke.

"[The] gazebo is associated with [a] designated smoking area. But now to keep people from congregating there, if you will, they removed the gazebos."
– Current Tobacco User

"The nonsmokers can really never enjoy the gazebo because they are always filled with the smokers." – Non-Tobacco User

6.5.2 Suggestions for Current Medical TFC Policy and Tobacco-cessation Activities

Participants were asked for their recommendations to improve knowledge and awareness of the policy, to improve enforcement and increase compliance, and to provide their recommendations for motivating tobacco users to quit.

6.5.2.1 Suggestions to Increase Awareness of Policy

Most participants thought the policy was well-advertised, particularly for MEDDAC employees, through signage. Participants thought that improvements might help disseminate policy information more thoroughly or more widely, particularly to a wider audience than MEDDAC employees (i.e., patients and non-MEDDAC Soldiers).

Participants' major recommendation was to give more explicit explanations on the policy's procedures, regulations and boundaries. The policy was generally thought of as well-advertised by signage, but signage did not adequately explain policy specifics or participants' roles in the policy. Participants recommended reiterating the policy by putting it in writing for dissemination, putting it in an APEQS training video, promoting the policy through more command emphasis or at hospital orientation, running a policy awareness advertisement on the hospital waiting room TV, making existing signs more visible, or reposting signs that were removed in construction areas.

One participant recommended addressing the frequent staff turnover by informing incoming staff and Soldiers of the policy at orientation. He/she thought that, *"Even though they may [see] the signs they may not quite fully understand the whole impact of it."*

"I just think that it needs to be kinda of reiterated you know because we do have a changeover of staff and most Soldiers are not coming in from a tobacco-free campus so it's something new." – Administrator

At least five participants from five different discussions did not think the policy needed improvement at all—

"I think they did a good job. I mean outside, for the people that work inside the MEDDAC they did the best job they could have done. For patients coming on the hospital grounds I mean what can you do beside put up signs?"
– Former Tobacco User

6.5.2.2 Suggestions to Improve Enforcement and Compliance

When asked about recommendations to improve the enforcement of the policy, participants said that the lack of punitive consequences affected compliance. Even though it made the policy difficult to enforce, participants were hesitant to suggest harsher repercussions. Individual suggestions are as follows:

- Institute roving patrol by staff duty (considered extreme by one member).
- Enforce through top-to-bottom leadership.
- Report violations to Sergeant Major or Commander.
- Add additional signage.
- Provide additional education.
- Improve orientation for newcomers.
- Make the entire installation tobacco free.
- Provide designated smoking areas in remote places of the campus.

"If you don't work there, there's really no way they can do anything except maybe go back to your unit and tell your Sergeant Major or your Commander but those of us that work there, okay, there's a counseling statement, civilian or military..."
– Current Tobacco User

6.5.2.3 Suggestions for Smoking Cessation

All groups said that tobacco users cannot be pressured to quit and that motivation to quit must come from personal will. Participants said that tobacco users do not respond positively to constant reminders of the dangers of smoking, especially because they are already aware of them. However, participants agreed that when tobacco users were willing to quit, they should have ample access to cessation services, which they did not feel was currently available. To improve access and utilization of cessation services, participants suggested providing time and permission during the duty day to attend classes, putting smoking cessation on the training calendar, holding mandatory stand-down trainings as they do for other topics, and advertising the classes better. Someone proposed bringing a spokesperson from cessation services to the units to convince smokers to quit or advertise their services (like Army Community Services (ACS) does).

"I don't think it's our call to, to tell someone. If they feel like they can quit, they can quit. But if you pressure someone to quit they gonna smoke more."
– Current Tobacco User

“Smoking is a danger to readiness. Incorporate that in our stand-down training and close down the whole Army... I think if the Army put emphasis on it people would be more enlightened to the dangers of it and they’ll be more apt to want to stop and to embrace it because the Army has put emphasis on it.”

– Non-Tobacco User

Tobacco users also wanted access to cessation pharmaceuticals without the requirement of attending classes. Some said they did not utilize any of the cessation services because they were bundled together with classes.

“The way to improve it is to provide an easier way to quit smoking. We have some options for smoking cessation here but I’m not convinced that it’s not easy to do. You know you gotta go see a doctor and you gotta do certain things and people just don’t have time.” – Non-Tobacco User

Other individual suggestions to improve smoking cessation included—

- Lead by example and have leaders quit first.
- Use money as motivation.
- Make smoking areas less accessible.
- Raise the prices of cigarettes on the installation.
- Create a TFI.
- Replace smoking habit with another activity.
- Allow access to pharmaceuticals without classes.
- Provide cessation-support groups
- Provide a gum station.

6.6 What are Employees’ Thoughts on a Tobacco-free Installation

The surveys did not collect any information on employees’ thoughts on a TFI. However, during the focus groups, interviews, and informal discussions, the AIPH team asked all participants their thoughts regarding tobacco-free Army installations. Several key themes emerged, each of which is summarized below. Table G-25 provides an overview of the number of qualitative sources in which each theme emerged, as well as the total number of references to that theme across all sources.

6.6.1 Support for a Tobacco-free Installation

The majority of participants were strongly against the idea of a TFI, regardless of whether they supported the FS/HAAF MEDDAC TFC policy. This was true for all groups (current, former and non-tobacco users) except for administrators. Only one administrator was against a TFI.

The top reasons for being against a TFI were: the belief that it infringed on individual rights, the belief that service to one’s country justifies the right to smoke, anger at the idea of a TFI, and the perceived effect it could cause on the irritability of tobacco-using coworkers.

“The Army can send me to war and they can’t let me have a cigarette? There’s an issue. See? My neck’s heating up.” – Current Tobacco User

“You don’t want to be around that smoking first sergeant that can’t get a cigarette.” – Current Tobacco User

Only administrators or non-tobacco users supported the idea of a TFI. The majority of administrators had fewer reservations about a TFI, while non-tobacco users supported a TFI but with concerns regarding practicality, compliance, or feasibility.

“I’m a nonsmoker so... I think...that would be a great thing. I think it’s a great message to our young Soldiers and their families...you need to be healthy. We, we make them take fitness tests and we have runs and...we’re all about health promotion.” — Administrator

“I’m pro...having a tobacco-free campus. If you can get the whole installation tobacco-free, great, but I honestly don’t see that happening.”
– Non-Tobacco User

6.6.2 Infringement on Rights and Freedom

Tobacco users, non-tobacco users, and administrators alike said that making an entire installation tobacco free infringed on individual rights and personal freedom because tobacco is a legal substance and should not be banned on installations. This was a common theme. Participants compared tobacco use to other unhealthy behaviors like alcohol and junk food and believed that policymakers should preserve the option of personal choice.

“I think that’s taking it a little bit too far. And personally, I don’t smoke, but personally I think that’s really infringing on people’s rights.” – Non-Tobacco User

6.6.3 Feasibility

Many participants doubted TFI feasibility, whether they supported it or not, mostly due to concerns about compliance and enforcement. Some believed that the Federal government would have to make smoking illegal for an installation to be tobacco free. However, an administrator believed that leadership would not support a TFI. Several others said that generals, the garrison, non-appropriated fund (NAF), and Soldiers living in barracks on post would resist a TFI as well.

“Enforcement would be very difficult unless you made it like a dollars and cents ticketable thing by the MPs...” – Former Tobacco User

A few participants thought that a TFI was possible, especially for the military population because *“they [military leadership] can really control absolutely everything you do,”* including the campus or installation, according to a non-tobacco user.

6.6.4 Inevitability

Several participants believed that a TFI was inevitable. Some believed that people would come to accept it upon implementation, just as similar tobacco-free policies were accepted in the Civilian world or the transition from smoking inside buildings to smoking prohibitions inside buildings was accepted.

6.6.5 Hypothesized Effects

Employees predicted that a TFI would cause behavioral and emotional effects, would frequently be violated with ensuing disciplinary action, and would affect productivity.

6.6.5.1 Behavioral and Emotional Effects

Participants predicted many behavioral and emotional effects for a TFI. They thought a TFI would cause chaos, increase stress, anger smokers, cause agitation, and cause a spike in other harmful behaviors. Many participants (tobacco and non-tobacco users) thought smokers needed an outlet for stress relief. At least one person said that smokers might switch to smokeless tobacco.

“From what I’ve seen from being a Soldier and being a retiree you take away one vice, they’re going to get another one. If they don’t smoke who says they’re not going to start drinking? You have to relieve that pressure some kind of way.”

– Non-Tobacco User

6.6.5.2 Frequent Violations and Disciplinary Action

Many participants said smokers would violate the policy regardless of the installation being tobacco free. Participants thought the policy itself may create a sense of defiance that encourages smokers to smoke more. Participants thought that there would be frequent violations and disciplinary actions, and smokers would find ways to evade the policy (such as smoking in cars, smoking in inconspicuous locations, or going off post for breaks).

“I think a lot of people will end up sneaking if you do that. They’ll be finding little places to hide and then you have a lot of those like unintentional fires just because they’re doing it somewhere they shouldn’t...”

– Non-Tobacco User

6.6.5.3 Effect on Productivity and Workplace

Both tobacco and non-tobacco users thought that a TFI would affect productivity because smokers would go off post to smoke and, therefore, take longer breaks. They agreed that it would create stress in the workplace, and a few thought that it may result in the loss of some quality workers or deter workers from coming to that installation.

“I think it would slow productivity down too. You know, people tryin’ to get away ... to go smoke.”

– Current Tobacco User

6.6.5.4 Other Hypothesized Effects

A few people thought that a TFI would meet resistance initially but would work eventually. A couple of participants compared this to the promotion and acceptance of the Army Substance Abuse Program or the gradual acceptance of FS/HAAF’s TFC Policy. Some people suggested that stopping tobacco use would lead to increases in other unhealthy behaviors (such as trying other drugs or gaining weight). Some thought that tobacco cessation should be given the same amount of attention and resources as sexual harassment or suicide prevention.

“They might be the person to stop smoking and gain 50 pounds. Or, oh boy, now let me try another type of drug since I can’t smoke.”

– Non-Tobacco User

Other less-frequently mentioned hypothesized effects: medical facilities will be overwhelmed for cessation services, people will move off post, nonsmokers will be happy with policy, it may make it easier for people who want to quit, and it may increase cessation attempts.

“When you know that this is a smoke-free post or installation and they put something in that if you find people doing it you will be held accountable, people gonna hold each other accountable. And I think it will work.” – Non-Tobacco User

6.6.6 Facilitators of a Tobacco-free Installation

Participants suggested factors that would facilitate a TFI, based on evidence from the FS/HAAF's TFC implementation, hypothetical reasoning, and personal anecdotes.

6.6.6.1 Introduce Incremental Changes

Participants most often advocated for incremental changes leading up to a TFI. For example, the installation could start with making certain areas like childcare centers, fitness centers, hospitals, and brigade areas tobacco free. Many suggested gradual progress to making the entire installation tobacco free. They thought this would decrease resistance and ease the transition for smokers who are addicted.

“They could do it leapfrog, one brigade at a time or something...And then eventually it would get to the installation. Because it's kind of hard for people to go cold turkey.” – Non-Tobacco User

6.6.6.2 Gain the Union's Support

Participants thought the Union and the Union president's support were imperative to the FS/HAAF TFC implementation. Two people said that this relationship would also be important for making an entire installation tobacco free. This site's MTF and the Union had a good relationship which may be unique. Therefore, one administrator suggested bringing in a third-party negotiator for installations that do not have a good relationship with their Union.

“We had the union president on the committee and he was supportive from day one and I think if we had met some...resistance there, it would have been more difficult.” – Non-Tobacco User

“Does each local MTF do their own negotiating with the union? You know, it might be something to think about to hire somebody possibly... Especially when you don't have a good relationship with the union and the MTF to start with....Now if you've got a good relationship then you don't need to mess that up. But if you don't, maybe some outside blood from somebody else.”
– Administrator

6.6.6.3 Implement at the Recruiting Phase

At least three participants suggested implementing a TFI at the recruiting stage (for military, Civilian, and contractors) rather than imposing the policy on current tobacco-using employees that are already on the installation (essentially phasing in a generation of non-tobacco users). A current tobacco user said that he may not have joined the Army if he knew smoking would be prohibited.

Another participant thought it was a realistic expectation as a condition of employment or military service because it could be considered either a pre-requisite for the job or health-exclusion criteria for military service, similar to how other health conditions are exclusion criteria.

“If the government wanted to make it a condition of employment that you had to be a nonsmoker to come to work for the government, I think the government could get away with that. There’s no discrimination there. That’s a prerequisite. I mean, all of us have got to have some type of prerequisite to get hired. You had to have this to get this job.” – Administrator

6.6.6.4 Provide Advanced Notice

Similar to how employees and patients of the TFC policy were notified at an early stage, one participant suggested that providing ample advance notice of the impending TFI policy to allow smokers time to adjust, find resources, or quit smoking would facilitate a TFI.

6.6.6.5 Provide High Quality Cessation Services

One participant emphasized the need for excellent cessation services with ample access and availability if a TFI policy comes to fruition.

“They better provide some excellent tobacco cessation if they’re gonna do that, and I mean excellent, and allow it to be done during your work time with no repercussions.” – Current Tobacco User

7 Limitations and Strengths

7.1 Limitations

There are several limitations associated with this evaluation, which include the following:

- a. Given the non-experimental design of the quantitative evaluation component, several threats to the internal validity of reported findings exist. Something other than the policy could have contributed to observed effects. For example, the observed attitudinal shifts may have resulted from other communication campaigns rather than the policy marketing and implementation. Future studies of policies like this should utilize a control group or a comparison group to assess what occurs over time in a population not exposed to a TFC policy.
- b. In order to maintain respondents’ anonymity, no identifiable information was collected on the survey tools. Therefore, survey responses were not matched from pre-test to post-test. Baseline and 12-month survey samples were treated as independent samples, thereby, limiting the ability to detect differences over time. In addition, this approach did not allow analyses to account for within-subjects variability.
- c. This report documents the experience of one medical campus implementing a TFC policy. Though findings can help generate lessons-learned and recommendations for other sites, results cannot be generalized to MEDCOM, the Army, or the DOD.

d. Focus groups were conducted at only one point in time more than a year after the policy had been implemented. Attitudes and opinions may have differed at various time periods during policy implementation.

e. This evaluation primarily examined only the employees' perspective and not the perspective of patients and visitors. Though a few patient perspectives were captured via informal discussions in the qualitative evaluation component, the effect the policy has had on these populations remains unknown. Future studies should include these target audiences in their designs.

f. Survey respondents were somewhat reflective of the general population; whereas, the qualitative sample had a higher proportion of males than the study population and may have self-selected due to strong opinions. It is, therefore, possible that the qualitative opinions expressed did not reflect the study population.

The evaluation team attempted to mitigate and control for as many limitations as possible in the design, analysis, and reporting associated with this project; however, these must be considered when interpreting or attempting to generalize any findings.

7.2 Strengths

Despite its limitations, there are several strengths associated with this evaluation—

a. The design utilized a mixed-methods approach, which provided a robust set of qualitative and quantitative data with which to comprehensively answer the guiding evaluation questions.

b. The evaluation team collected baseline data among employees prior to policy implementation and follow-up data after policy implementation, which allowed for analysis of changes over time.

c. Survey response rates of 65% were higher than average reported in the literature (~30%, Cifuentes 2008) for the employee online questionnaires distributed at baseline and follow-up.

d. This evaluation is the first of its kind within the Army to assess the impact of a TFC policy among Army personnel and to systematically document employees' perceptions of a TFI.

8 Summary Conclusions

8.1 Employees' Attitudes, Awareness, and Support Towards the Policy

a. Employees generally believed that tobacco use negatively affects morale, productivity, and readiness. The percentage of employees who believed smoking negatively affects workplace morale and excessive smoke breaks negatively affect productivity increased significantly from baseline to 12 months.

b. Most participants were aware of the policy and its boundaries. Survey data showed that familiarity with the policy's boundaries of where tobacco use was and was not allowed increased from baseline to 12-month follow-up (29% to 49%).

c. Participants believed the increased visibility of smokers as a result of the policy creates a bad image for the hospital.

- d. Both tobacco and non-tobacco users believed that the policy increased the length of time that smoke breaks take, and non-tobacco users thought break times were inequitable across tobacco-use status.
- e. Signage was the primary source of information for the policy, but participants thought signs needed to be more visible, more explicit, or replaced in some areas.
- f. Survey data showed satisfaction with the policy increased overall from baseline to 12-month follow-up and that the majority of employees were satisfied with the policy at 12-month follow-up (59.4% either “very satisfied” or “slightly satisfied”). Satisfaction with the policy was dependent upon tobacco-use status and tobacco users’ satisfaction with the policy decreased over time. The majority of qualitative participants accepted the current policy, tobacco users included, because it reduces SHS exposure. Any dissatisfaction with the policy largely stemmed from perceptions that it infringes on individual rights, is discriminatory, or is non-punitive.

8.2 Policy’s Effects on Employees

a. Secondhand Smoke.

- Knowledge of SHS health effects and perceived harm from SHS were already moderate to high at baseline but increased slightly by 12-month follow-up. Overall, participants generally perceived SHS exposure as harmful.
- Exposure to SHS decreased from baseline to 12-month follow-up (from 64% to 47% of employees reporting being exposed over the past 7 work days). After controlling for key demographic characteristics, employees had more than twice the odds of reporting SHS exposure at baseline than 12 months following policy implementation (OR:2.06, $p<.001$). The qualitative feedback supports this finding. Participants noted the SHS has shifted to other areas outside of MTF campus boundaries.

b. Tobacco Use Habits.

- The policy impacted tobacco-use habits in several ways, but the frequency of cigarette use and smokeless tobacco use did not differ significantly from baseline to 12-month follow-up.
- The qualitative data reflected the ambiguity of the survey data, with participants giving a variety of responses for how the policy affected their tobacco-use habits and its effect on total daily consumption. The most significant change in tobacco-use patterns was a change in the location of tobacco use now that smokers *“have to walk across the street.”*

c. Motivation to Quit.

- The majority of tobacco users believed the policy had no effect on them quitting or having a desire to quit. This is supported by evidence from the survey data with no significant differences from baseline to 12-months follow-up in the majority of tobacco-user survey respondents not wanting to stop using or not knowing if they wanted to stop using, not contemplating quitting or not knowing if they contemplated quitting within the next 6 months, and attempts to quit.
- Many participants believed that the decision to quit was based solely on personal will and cannot be influenced by a policy or anyone but the individual themselves.

- Participants thought that personal will, health, and finances were top motivating factors for quitting. However, non-tobacco users cited different health issues as motivators to quit than tobacco users did, and thought graphic ads of severe health consequences would be effective; whereas; tobacco and former tobacco users either disagreed or did not mention these as motivating factors. Current or former tobacco users cited fitness concerns, run times, general health concerns, or family pressures as other reasons to quit that non-tobacco users did not mention.
- Both tobacco and non-tobacco users said that the main obstacle to quitting was having no desire to quit or that it was an enjoyable habit.

d. Utilization of Cessation Services.

- Over time, there were differences in respondents' knowledge about whether their insurance covered treatment to quit tobacco. Trends suggested more respondents correctly believed their insurance covered tobacco-cessation services at follow-up than at baseline.
- Tobacco users who reported quit-attempts most commonly reported using nothing to assist in their attempt(s) at baseline and follow-up. Of those who used any form of assistance, medication was the most popular method to assist in quit-attempts, utilized by more respondents than classes, counseling, self-help, and e-cigarettes.
- Tobacco users wanted cessation medications without being required to attend classes. However, Winn ACH has not required tobacco users to attend cessation classes for over 2 years; therefore, the belief that class attendance is required to obtain medication is an employee perception of past practices. Throughout the TFC implementation, tobacco users were required to complete "Train2Quit," a DOD-sponsored, Web-based tobacco-cessation program.
- The majority of survey respondents (86.5%) were aware of the Tobacco-Cessation Clinic (ranging from slightly aware to very aware). However, there were no increases in cessation services utilization from baseline to 12-month follow-up.

e. Health Outcomes.

- Employees were no more likely to have taken sick days at baseline than at 12-month follow-up after taking into account all differences in demographic characteristics.
- No change was seen in the prevalence of selected chronic conditions over the 12-month period with the exception chronic bronchitis, whose prevalence appeared to have dropped during the study period. The odds of employees reporting a chronic bronchitis diagnosis were 1.45 times greater at baseline than at 12-month follow-up after taking into account all differences in demographic characteristics.
- It is likely that longer-term changes in health outcomes will not be apparent for some time. In addition, a couple qualitative participants thought that tobacco users may be benefiting from having to walk further to smoke.

f. Break Times. Participants frequently mentioned they perceived that the policy increased the duration of break times, but it could not be determined if it affected the frequency of break times.

g. Safety. The policy created safety concerns according to participants. Most notably, it forced smokers to cross a busy street. It also created fire hazards and exposed tobacco users to the elements.

h. Cigarette Butts. There was mixed feedback from participants regarding cigarette butts. Some said cigarette butts were less visible while others said there was now a ring of cigarette butts around the hospital due to the removal of disposal containers.

i. Visibility of Smokers. Participants noted increased visibility of smokers around the hospital's perimeter.

j. Marginalization. Smokers felt stigmatized by the policy, and non-tobacco users were sympathetic to smokers. Participants often compared smoking to other unhealthy behaviors such as poor nutrition or lack of exercise. This comparison was used to justify perceptions that smokers were being targeted over other groups which were not being denied their freedoms to engage in unhealthy behaviors.

8.3 Compliance with the Policy and Effectiveness of Enforcement Efforts

a. Policy Violations. Survey data show that the majority of participants (75%) had not seen any or had seen fewer than five policy violations since July 2012. This was in contrast to the qualitative data because most participants reported seeing violations almost daily.

- Construction workers and contractors were the most frequently observed violators.
- Violations commonly often occur in vehicles, in the parking lot, or along the campus perimeter.

b. Policy Enforcement. The policy is typically self-regulated without confrontation. Participants reported varying comfort levels when it came to enforcing the policy with a violator. Military rank, fear of backlash, and concern for the violator were the main reasons for reluctance to enforce the policy.

- Participants praised signage as an enforcement tool.
- Most, but not all, participants were aware of the information cards and their purpose. However, many participants did not distribute the cards for multiple reasons.

8.4 Participants' Desires in a Workplace Tobacco Policy

a. There was a shift in thoughts about where tobacco use should be allowed between baseline and 12-month follow-up. At baseline, the majority of survey respondents believed that tobacco use should be allowed in some areas. Comparatively, at 12 months, the majority thought smoking should not be allowed at all. Opinions varied by smoker status, though all groups (tobacco users, former users, and non-users) experienced an increase in the proportion believing smoking should not be allowed at all over time.

b. Designated smoking areas were a major theme observed in the qualitative data. Participants were amenable to a TFC with the caveat that there is at least one designated smoking area. Many non-tobacco users were not opposed to this to appease smokers.

c. Many participants did not think the policy needed improvement but thought that more explicit explanations of the policy's procedures, regulations, and boundaries would enhance compliance.

d. Participants thought that signage could be improved by providing more signage, larger signs, more explicit signage, and reposting removed signs.

e. Participants thought the policy was difficult to enforce, but no major themes emerged to strengthen enforcement or improve compliance. Participants were hesitant to suggest harsher repercussions, but various individuals proposed solutions.

f. Participants desired greater access and availability of cessation services, classes, and products. The following suggestions were specifically requested:

- Provide time and permission during the duty day to attend classes.
- Put smoking cessation on the training calendar, hold mandatory stand-down trainings, or bring a spokesperson from cessation services to units.
- Do not bundle pharmaceuticals with cessation classes.

8.5 Participants' Thoughts on a Tobacco-free Installation

a. Support for a TFI.

- The majority of participants were strongly against a TFI, regardless of whether they supported the FS/HAAF MEDDAC TFC policy, except for administrators. The top reason for being against a TFI was that it infringed on individual rights and personal freedom.
- The minority that supported a TFI had concerns about feasibility, compliance, and practicality.

b. **Hypothesized Effects.** Participants predicted a TFI would cause behavioral and emotional effects, such as causing increased stress or a switch to another vice. In addition, participants thought a TFI would frequently be violated with ensuing disciplinary action and would affect productivity (i.e., smokers would take longer breaks to go off post to smoke).

c. **Facilitators of a TFI.** Participants suggested three key facilitators based on evidence from the FS/HAAF's TFC implementation, hypothetical reasoning, and personal anecdotes:

- Gain the Union's support.
- Introduce incremental changes, starting with areas like hospitals and childcare centers, then progressing to a fully TFI.
- Implement a TFI at the initial Military recruiting and accessions to "phase in" a generation of non-tobacco users.

9 Recommendations

9.1 Recommendations for Winn Army Community Hospital

The FS/HAAF medical TFC policy already adheres to best-practices for TFCs as documented in the literature (i.e., create a tobacco-free normative environment, engage stakeholders, increase and enforce sound tobacco-related rules, provide education about tobacco prevention, and offer cessation programs) (The Hanover Research Council, 2010). As with any policy, however, reinforcement is needed for continued and increased success. The following summarizes recommendations to help increase awareness, enhance compliance, increase quit-rates, and continue the success of the policy:

a. Increase Awareness of the Policy.

- Improve/replace signage within agreement with the Union.
- Replace signage that was removed due to construction.
- Consider adding 100% TFC to signs around the installation that direct people towards the hospital.
- Add pertinent details to signs such as campus boundaries or what types of tobacco products are not allowed.
- Consider creating additional signs to target smokeless tobacco products and e-cigarettes.
- Consider participants' recommendations to increase awareness. (Section 6.5.2.1—reiterate the policy by putting it in writing for dissemination, putting it in an APEQS training video, promoting the policy through more command emphasis or at hospital orientation, or running a policy awareness advertisement on the hospital waiting room televisions.)
- If one has not been created, develop a plain language fact sheet describing the policy to distribute to patients, visitors, and employees.
- Include MTF tobacco-free policy information during in-processing brief for incoming Soldiers to FS/HAAF.
- Address confusion among MEDDAC staff at the WTU by providing an explanation of why the TFC policy was not implemented on that campus.

b. Enhance Compliance with the Policy.

- Reiterate the importance of using information cards and redistribute them to staff regularly. Send a consistent and clear message about who should be using information cards and when this material should be distributed.
- Provide examples or model behavior of enforcement techniques to help staff feel comfortable approaching violators (e.g., "For your health and the health of others, we are a tobacco-free

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campus”; “I understand your frustration. Our TFC policy has required me to make some changes, too”) (Northeastern Vermont Regional Hospital (NVRH) 2008).

- Include all members of the MTF and medical campus community in enforcement, and encourage incoming community members to assist with compassionate enforcement efforts to ask Family members, buddies, and so forth to respect the policy
- Conduct additional outreach to contract companies to hold contractors responsible for violating the policy.

c. **Improve Cessation Services and Increase Quit-Rates.**

- Ensure the continued offering of a full range of high quality tobacco-cessation programs (counseling, medications, online) that are well-publicized.
- Enhance advertising of cessation services to the units to advertise their services—
 - Provide time and permission during the duty day to attend classes.
 - Put smoking-cessation classes on the training calendar.
 - Send a spokesperson from cessation services to the units to advertise their services.
- Provide evidence on the value of quitting and using cessation services—
 - Literature shows that “smokers who quit by the time they are 35–44 years of age avoid most of the risk of dying from a smoking-related disease” (CDC, 2014). The majority of survey respondents (67%) were between 18–49 years of age, so this information may be applicable to many tobacco using employees of the FS/HAAF medical campuses.
 - On the follow-up survey, 51.8% of former and current tobacco users reported using no assistance in quit-attempts. However, evidence shows that smokers improve their odds of quitting when they use evidence-based cessation counseling or medications (CDC, 2014).
- Ensure all medical providers are trained and encouraged to speak with patients about tobacco use (i.e., use the “5 A’s”: Ask about tobacco use, Advise to quit, Assess willingness to quit, Assist in quit-attempt, Arrange follow-up) (CDC, 2014).
- Continue promoting insurance coverage of tobacco-cessation services. Survey data showed there has already been success in this area; knowledge regarding insurance coverage increased from baseline to follow-up.
- Reduce barriers to access medication for tobacco users trying to quit and promote current practices within the MTF. Participants in this evaluation reported wanting medications without attending classes. A meta-analysis conducted in 2008 showed abstinence rates for medication alone was fairly high (21.7%), and medication and counseling was 27.6% (Fiore et al., 2008). While medication plus counseling increased odds of quitting, it may be worth considering giving patients who want only medications that opportunity. This is likely why Winn ACH does not require employees to sit through in-person classes any longer (employees are still required to take an online course to obtain medication). The Cessation Clinic should advertise current

practices to correct employee misperceptions. Further, an IOM report on combating tobacco use in military and veteran populations also recommends allowing health educators to provide medications (especially nicotine replacement therapies) to patients interested in quitting tobacco use (National Research Council (NRC), 2009).

- Promote cessation using motivators suggested by tobacco users (improved run times, fitness goals, and general health concerns) rather than motivators suggested by non-tobacco users (graphic ads, cancer, and death).

d. Continue and Enhance Policy Success.

- Continue to evaluate the TFC policy to measure the policy's mid- and long-term effectiveness, identify areas for improvement, and build best-practices.
- Continue to keep the campus 100% tobacco-free as the model for future MTFs and installations. Despite some participants expressing a desire for designated smoking areas, a 100% smoke-free policy has a greater effect than a partial ban at reducing the number of cigarettes consumed and overall increases the likelihood of someone quitting (Bauer, 2005).
- Engage with leaders in areas surrounding the medical campuses (i.e., National Guard, WTU) about how to mitigate unanticipated effects of increased cigarette butt litter, fire hazards, and so forth.
- If crosswalks are not in place at major intersections around the campuses or leading off the campuses, consider adding them. If crosswalks already exist, remind employees to use them for safety.
- Promote the success of the policy; provide results and feedback to employees.
- Share lessons-learned with other MTFs.

9.2 Recommendations for Other Army Military Treatment Facilities or Medical Campuses

Other MTFs or installation medical campuses that plan to go tobacco free should utilize evidence from existing literature and incorporate relevant lessons-learned, particularly those unique to the DOD or military. The following recommendations are based on a model toolkit for tobacco-free workplaces from the CDC Web site (CDC, 2010). The toolkit includes the following steps with lessons-learned from FS/HAAF's medical TFC incorporated as examples for other MTFs to plan, implement, and monitor a TFC (CDC, 2010).

a. Assess Needs and Interest for the Medical TFC Policy.

- Form a TFC Committee. Members who were instrumental to the committee at FS/HAAF MEDDAC included the Chief, Department of Preventive Medicine and the MTF commander. In addition, the involvement of the Union president and the Union's endorsement was absolutely essential to this committee. If the Union and the MTF do not have a positive working relationship, a third-party negotiator may need to be hired to mitigate disagreements. A positive working relationship with the Union was essential for a smooth implementation of the policy at FS/HAAF's medical campuses (see Appendix E Lessons-Learned).

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- Assess Management Interest. Involvement and support of top officials is crucial to the policy's success. For MTFs, this is generally the MTF Commander. Any MTF intending on implementing a TFC policy should determine the MTF Commander's desired provisions of the policy, along with other key influential stakeholders.
- Assess the Current Situation at the MTF. Determine if a tobacco policy already exists. Collect baseline data on employees who use tobacco (see Appendix D for FS/HAAF survey example). Determine what tobacco-cessation services are available to MTF employees and at what cost. Special issues encountered by FS/HAAF's medical campus were with contract personnel. Administrators learned that contracts needed to be modified to include the provision of a TFC. Since implementation, the provision of the TFC has been included in the Performance Work Statement for all new contracts, and contractors are asked to remind new candidates of the TFC policy. Additionally, contractors cannot utilize cessation services, and their employer is responsible to cover any costs associated with cessation services. Therefore, it would be worthwhile to brainstorm solutions for contractors to access cessation services (see Appendix E Lessons-Learned).
- Gather Input. Gathering input from all relevant stakeholders and using this feedback to inform the policy's development will help minimize opposition to the TFC policy. Input can help identify opportunities, obstacles, and address the population's concerns. Town halls, focus groups, work groups, or task forces are ideal ways to accomplish this objective.

b. Plan for the Medical TFC Policy.

- Form a Planning Committee. This can be the original committee described previously but may require supplementation with representative from additional directorates (e.g., surrounding campuses, communications, U.S. Army Installation Management Command).
- Develop a TFC Policy Specific to the MTF. Clearly spell out the desired policy objectives including boundaries, tobacco types, provision of cessation services, to whom the policy is applicable, when the policy goes into effect, how the policy will be enforced, what the consequences will be for violating the policy, how information will be disseminated, and how complaints will be handled. The FS/HAAF reported problems with violations in personally owned vehicles, in parking lots, and by contractual personnel; these may be issues other MTFs will need to consider. Additionally, research shows that a 100% smoke-free policy has a greater effect than a partial ban at reducing number of cigarettes consumed and overall increases the likelihood of someone quitting (Bauer, 2005). Policies that allow designated smoking areas still show a positive effect on reducing consumption and quitting, but these policies do not totally eliminate exposure to SHS (Bauer, 2005).
- Offer Comprehensive Tobacco-cessation Services. Cessation services are key to any effective tobacco-free workplace policy and should be offered before the implementation of the TFC begins. The Code of Federal Regulations allow expenditures for Civilian workers. See <https://www.opm.gov/policy-data-oversight/worklife/reference-materials/tobacco-cessation-guidance-on-establishing-programs-designed-to-help-employees-stop-using-tobacco/> for more details.

c. Promote the Medical TFC Policy by Developing a Communication Plan, Key Communication Messages, and Communication Strategies.

Administrators emphasized the importance of good communication among all stakeholders to facilitate the implementation of FS/HAAF's TFC. Components of a good communication plan include: (1) a timeline, (2) different modes of communication, (3) appealing communication materials, (4) provision of information about cessation services, (5) provision of rationale for the policy, (6) assignment of communication tasks, and (7) being compassionate and supportive to tobacco users.

Signage was a major strength of FS/HAAF's TFC communication strategy. However, the committee also utilized APEQs, emails, word of mouth, briefings at in-processing, and the chain of command to communicate the policy.

- Information cards were the primary method of enforcement at FS/HAAF, so it may be worthwhile to develop a similar communication material.
- The FS/HAAF administrators said that communicating the policy early, prior to implementation, was critical to a smooth implementation.
- Other strategies that FS/HAAF did not utilize but that other MTFs may want to consider include a "Frequently Asked Questions" information sheet, question and answer sessions, or the provision of maps to employees and visitors with boundaries of where tobacco use is and is not allowed.

d. Implement the Medical Tobacco-free Campus Policy.

- Announce the Policy. Announce the policy with significant lead time (a minimum of 2 months or longer) and with the advertisement of cessation services to allow employees to plan accordingly.
- Continue to Offer Cessation Services.
 - **Create an Environment that Conveys a Tobacco-free Message.** Place signs and posters with the "Tobacco-free campus" message. Signs were the primary source of information about the FS/HAAF medical TFC policy and were integral to information dissemination and policy enforcement. Remove areas associated with smoking (e.g., "smoking gazebos") on the campus.
 - **Enforce the Policy.** A clear enforcement effort should be delineated in the TFC Policy plan. Per agreement with the Union, FS/HAAF MEDDAC chose a flexible, gentle enforcement policy without harsh disciplinary action. The chief proponent of the TFC policy at FS/HAAF MEDDAC, and a senior-ranking officer, occasionally patrolled the campus as a visible reminder that the policy was enforceable.
 - **Monitor the TFC.** Monitor the policy to identify areas of noncompliance, clarify concerns, and mitigate problems. The FS/HAAF monitored the TFC policy by information cards that were turned into the staff duty desk with a description of the violation.

e. Evaluate the Medical TFC Policy. Evaluation is a critical component of any program to assess the extent of success, document best practices, and identify areas for improvement.

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- Conduct pre- and post-implementation data collection to assess the extent to which the policy is achieving its goal (recommended baseline and 12-month at a minimum).
- The FS/HAAF disseminated surveys to medical campus employees and conducted focus groups after 12-months follow-up.
- Data collection tools (i.e., surveys, focus group guides) can be developed or modified from existing tools (see Appendix D for FS/HAAF surveys).
- The MTFs can collaborate with USAPHC, universities, or military clearinghouses for assistance with developing evaluation tools, data management, and data analysis.
- Communicate best-practices, lessons-learned, and obstacles with other Military MTFs as other Army MTFs or installations go tobacco free.

f. Set a Target for all MTFs to go Tobacco Free.

g. Utilize Additional Tips from Scientific Literature when Planning a Military Medical Tobacco-free Campus.

- Wheeler (2007) suggests essential components of a successful TFC policy include strong leadership by hospital administration, opportunities for cessation, education, and a pre-ban public relations campaign (Wheeler, 2007).
- The Mayo Medical Center, one of the first tobacco-free hospital campuses, attributes its success to the following factors, several of which have been described throughout these recommendations: (1) active support from top administrators; (2) adequate lead time (12 months) to notify and prepare staff for the policy's implementation; (3) creation of a task force to gather information and develop the policy and implementation plan; (4) gathering input from all stakeholders; (5) provision of smoking behavior information sessions during work hours; (6) demonstration of compassion and sensitivity towards smokers; (7) distribution of the policy statement to employees, job applicants, and patients; and (8) strategic publicity and signage (Hurt, 1989).

9.3 Recommendations for Tobacco-free Installations

In the 2009 consensus report, entitled "*Combating Tobacco Use in Military and Veteran Population*," the IOM made several recommendations to the U.S. Military regarding ways to reduce and eliminate tobacco use within the Armed Services (NRC, 2009). The report specifically recommended that **"Designated indoor and outdoor tobacco-use areas on military installations should be discontinued such that military installations are tobacco free"** (NRC, 2009, p. 218).

Below are a series of recommendations to U.S. Army leadership regarding the potential future roll-out of TFIs based on participant responses during this evaluation, associated recommendations from the IOM report, and current literature regarding the implementation of TFC policies in somewhat comparable communities.

a. Any TFC or TFI Initiatives Should Follow the Steps and Adhere to the General Recommendations provided by the CDC and IOM and National Prevention Experts.

All TFC policies should follow the general steps—assess needs and interest, plan, promote, implement, and evaluate success—specified above, and many of the specified strategies from Section 9.2 will be appropriate whether instituting a tobacco-free medical campus or a TFI policy. Though the scope of the policy will differ at the installation rather than medical-campus level and the stakeholder groups will be more diverse, the same principles apply and should be followed.

Furthermore, the IOM states that key implementation components of a comprehensive tobacco-control program include a strategic plan, dynamic leadership, essential intervention components (enforceable and enforced policies, communication interventions, and evidence-based treatments), adequate resources, surveillance and evaluation of the program's effectiveness, and management capability to adjust the program in response to that evaluation (NRC, 2009, Chapter 4). As with any public health program, initiative, or policy, the Army must take into consideration the unique needs of its population. Ensuring that any TFI efforts follow the logical steps for policy implementation and include the key implementation components will position such efforts for optimal success.

b. The Army Should Consider Incremental Changes as it Moves Towards TFIs. The IOM, current literature, and focus group participants all suggest a variety of means by which the Army could institute incremental changes to get Army installations closer to becoming fully tobacco free. For example, the IOM recommends beginning with an expansion of current basic training policies prohibiting tobacco use within the first 1–9 weeks of Initial Military Training (IMT) into later stages of training. Focus group participants suggested that additional areas of an installation such as schools, playgrounds, and gyms could institute policies similar to those at the medical campuses to expand the areas on an installation where tobacco use is not allowed. Similar to the IOM recommendation of expanding IMT tobacco-free policies, participants in this evaluation further believed a facilitator of a TFI would be beginning with during recruitment; they believed that if recruits understood they were expected to be tobacco free throughout their military career, in time the Army would become a completely tobacco-free organization. Lastly, the Army could consider trying to pilot a TFI policy at one or a few installations before launching an Army-wide policy to determine lessons-learned and ways to mitigate potential unintended effects or problems with enforcement, such as those encountered with the FS/HAAF policy.

c. The Army Should Build upon Lessons-Learned by Similar Communities, and Particularly College Campuses that have Implemented TFC Policies.

Literature suggests that in 2009 there were 122 college campuses that had instituted smoke-free or TFC policies (IOM, 2010) and by September 2012 that number had risen to 774 (Robert Wood Johnson Foundation (RWJF), 2014). At present, approximately 1,159 colleges and universities—an approximate ten-fold increase since 2009—have implemented smoke- or tobacco-free campus policies (RWJF, 2014). Some reasons for such widespread adoption may include but are not limited to: (1) their effectiveness in reducing SHS and tobacco use among college students; (2) the development of the National Tobacco-Free College Campus Initiative, a collaboration between a variety of academic, Federal, and non-profit organizations providing a central repository and Web site (www.tobaccofreecampus.org) for institutions hoping to implement such policies; and (3) high levels of buy-in and advocacy from top leaders such as the U.S. Assistant Secretary for Health (RWJF, 2014).

Similar to military installations, college and university campuses across the country include residence facilities, restaurants, shopping, and outdoor spaces. Some colleges and universities also provide married student housing, in many ways comparable to military housing. The lessons-

learned from the movement of U.S. institutions of higher education to provide TFCs for their employees, students, and visitors may provide tremendous insight into how to overcome some of barriers to implementation and enforcement of community-wide policies affecting areas where individuals work, live, and play. As such, the military should consider partnering with leaders of this movement (e.g., the DHHS, the American College Health Association) to determine what strategies and tactics may be applicable to Military installations.

d. The Army Should Expect Resistance to TFIs but Should Not Let this Resistance Impede Progress.

In general, a paucity of information exists regarding the attitude of military personnel toward tobacco-use restrictions in the workplace and other community settings (IOM, 2009). To the best of our knowledge, this is one of the first reports to summarize such attitudes. Only one stratum of focus group, interview, and discussion participants—medical TFC policy administrators—within this sample generally favored the idea of TFIs. Though some individual participants within the other strata believed TFIs would be beneficial, the majority of current, former, and non-tobacco users in this evaluation reported opposition to TFI policies (even when expressing high levels of satisfaction with the medical TFC policy), primarily because they thought such policies infringe upon individual rights and freedoms. Even those who supported the idea of a TFI noted there would likely be significant challenges with feasibility, compliance, and practicality.

Though not specific to military communities, several participant concerns are comparable to attitudes expressed in opposition to smoking or tobacco bans in other workplaces and community settings (e.g., Sheffer, Stitzer, and Wheeler, 2009; Wheeler, 2007; Tang et al., 2003; Scollo et al., 2003), such as negative employee morale as a result of implementing tobacco-control policies, difficulties with enforcement, fear that smokers will now smoke in uncontrolled areas, and potential financial consequences resulting from decreased consumerism in establishments with such policies. Interestingly, many of these concerns are often unfounded once policies have been implemented. For example, studies have failed to find evidence that smokers quit working at a location because of restrictions on smoking (Glasgow, 1997), and there has been no-observed decrease in revenue after bars and restaurants have implemented tobacco-free policies (Alamar and Glantz, 2007).

Moreover, a recent summary of 16 relevant reports using surveys from 1988 to 2007 found the majority of the public supports restricting smoking in various outdoor settings, and levels of support for smoke-free outdoor public places seems to be increasing over time (Thomson et al., 2009). Common reasons for support include: litter control, establishing positive smoke-free role models for youth, reducing youth opportunities to smoke, and avoiding exposure to SHS. Literature also shows that similar to what occurred with FS/HAAF medical employees attitudes in support of tobacco-free environments tend to become more positive after the implementation of tobacco-control policies (e.g., Seo et al, 2011).

Given the complex relationship between and history of tobacco and the Military, the failed attempts to meet tobacco-free goals in the past (NRC, 2009), the opposition commonly expressed in the literature prior to tobacco-control-policy implementation, and the opinions expressed in this report, it is highly likely that there will be high levels of resistance to any proposed or planned TFI efforts. Community members should be given the opportunity to voice concerns, and Army leadership should address and help alleviate concerns through forums, open dialogue, and problem solving. Leaders of TFI efforts could present community members and decision makers with examples of success stories and data from similar communities whose concerns did not come to fruition once policies went into effect.

In this sample, several participants believed that a TFI was inevitable. Some believed that people would come to accept it upon implementation, just as similar tobacco-free policies were accepted in the Civilian world, or the transition from smoking inside buildings to smoking prohibitions inside buildings was accepted. Capitalizing on such historical successes may help troubleshoot opposition moving forward.

e. The Army Should Offer Evidence-Based Tobacco-cessation and Prevention Initiatives to All Soldiers, Beneficiaries, and Civilian Employees.

Offering cessation services is a best-practice recommended by the CDC and the World Health Organization to reduce tobacco use (CDC, 2011). It addresses participants' concerns about "the need for smoking cessation programs" identified in the FS/HAAF evaluation and the scientific literature (Hurt, 1989). The majority of smokers attempting to quit (two-thirds to three-quarters) "do not use any evidence-based cessation counseling or medications," and their odds of successfully quitting greatly increase when they use these methods (CDC, 2014). Key components of cessation services are: individual, group and telephone counseling, U.S. Food and Drug Administration-approved prescription, over-the-counter cessation medications, coverage for a minimum of two quit-attempts per year, minimizing costs of copays and deductibles, and proactively promoting cessation services (CDC, 2014). To promote tobacco-free military communities, the Army must provide access to effective, evidence-based strategies to those who live and work on installations.

f. The Army and Its Leadership Should Ensure They are Sending Clear, Consistent Messages Regarding its Expectations Regarding Soldiers' Tobacco Use.

While the DOD is making efforts to reduce tobacco use in the Military, the sale of tobacco products on installations at discounted prices offers a contradictory message to the DOD's goals for tobacco use. The IOM recommends prioritizing tobacco use as a health behavior similar to how it treats alcohol abuse and other health-related behaviors, including making Service members accountable for tobacco use and cotinine urine testing (NRC, 2009). The IOM recommends prohibiting the sale of tobacco on Military installations or at a minimum, raising prices to those commensurate with Civilian prices (NRC, 2009). Additionally, leaders and officers may be the best place to start modeling this behavior, as officers already have the lowest rates of tobacco use and are expected to lead by example (NRC, 2009).

10 Point of Contact

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Appendix B

**U.S. Army Medical Department Activity
Commander's Policy Memorandum No. 21—Tobacco-Free Campus Policy**



DEPARTMENT OF THE ARMY
UNITED STATES ARMY MEDICAL DEPARTMENT ACTIVITY
1061 HARMON AVENUE
FORT STEWART, GA 31314-5641

REPLY TO
ATTENTION OF:

MCUB-CO

14 July 2012

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Commander's Policy Memorandum Number 21- Tobacco-Free Campus Policy

1. Purpose.

a. This policy establishes guidelines for a tobacco-free campus at USA Medical Department Activity (USA MEDDAC), Fort Stewart (FS), Tuttle Army Health Clinic (TAHC), Hunter Army Air Field (HAAF), all outlying health clinics, DENTAC clinics and VETCOM clinics at FS and HAAF. The campus is defined as any property or non-residential building that is owned, operated, maintained or leased by the USA MEDDAC, DENTAC or VETCOM, to include all roads, parking lots and sidewalks, heretofore known as the medical campus.

b. The medical community recognizes tobacco use as the most important preventable cause of death and chronic illness in the United States. A 2006 report by the U.S. Surgeon General declared there is NO risk-free level of exposure to secondhand smoke, including residual smoke residue that lingers on the cloths of those that return to work after smoking. Therefore, to better support our medical community's mission to protect the health, safety and comfort of employees, patients and visitors from the adverse health effects of tobacco products, tobacco use is prohibited on the entire medical campus. Tobacco products include, but are not limited to, cigarettes, cigars, pipes and smokeless tobacco. As a public health community, simple separation of smokers within the same airspace does not eliminate exposure to Environmental Tobacco Smoke and providing spaces to smoke does not assist patients with quitting or providing a healthier environment. Building and maintaining smoking huts sends a message of approval for smoking. A smoke-free workplace is safer and healthier with reduced hazards and risks, and costs for all employees. Furthermore, reduced employee smoking prevalence reduces absenteeism, increases productivity, and reduces direct health care costs.

c. This policy applies to all USA MEDDAC, DENTAC, or VETCOM employees, patients, visitors, students, trainees, volunteers, vendors and supplemental staff to include contract employees; Heretofore known as employees, patients and visitors. The use of tobacco products (including electric cigarettes) are not authorized in or around any areas specified in this policy. This policy is effective on the date of this memorandum.

2. References. Required and related publications and forms are listed at the end of this policy.

3. Responsibilities.

a. Commander, USA MEDDAC. Authorizes the execution of a tobacco-free campus policy on the medical campus and ensures implementation and enforcement of these guidelines.

b. Commander, DENTAC. Supports policy and ensures compliance by their respective employees.

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c. Clinic Commander, FS VETCOM. Supports policy and ensures compliance by their respective employees.

d. Chief, Department of Nursing.

(1) Identifies tobacco using in-patients, and ensures they are informed of the tobacco-free campus policy and offers in-patients the FS/HAAF medical tobacco-free campus information card (Appendix A) which details available tobacco cessation resources at the MEDDAC and explains the tobacco-free initiative.

(2) Informs patients that cessation medication may be prescribed while an in-patient to assist with tobacco cessation or as a short-term measure to manage acute nicotine withdrawal symptoms, if approved by their provider. Patients are referred to Department of Preventive Medicine upon their discharge from the hospital for further evaluation and treatment for tobacco-related disorders.

e. Chief, Department of Public Health Services.

(1) Appoints a Tobacco Cessation Program Coordinator to champion, coordinate and market tobacco cessation information and services for the medical campus employees.

(2) Provides direct and consultative services for tobacco cessation education and treatment to include support services for employees desiring to quit tobacco use.

(3) The Tobacco Cessation Program Coordinator provides or arranges for tobacco cessation counseling/information for all other patients expressing a desire to quit using tobacco products.

(4) Conducts increased training opportunities to qualify medical providers (including dentists) to become certified Tobacco Use Cessation (TUC) providers, thereby increasing access to TUC products and resources.

f. Chief, Logistics. Provides and maintains signs/facilities to support the tobacco-free campus policy.

g. Department/Division Chiefs.

(1) Inform all new employees of the tobacco-free campus policy.

(2) Ensure supervisors and staff are informed of the tobacco-free campus policy and adhere to the established procedures within their respective sections.

(3) Conduct standard Human Resources-approved, progressive discipline procedures (verbal and/or written), and when appropriate, discipline employees for failure to comply with this policy. Day-to-day responsibility for implementation and compliance lies with both military and civilian supervisors.

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(4) Offer assistance to employees requesting tobacco cessation information and/or counseling. Tobacco cessation services to include cessation classes and pharmaceuticals will be provided free to DoD civilian employees, through the Occupational Health (OH) Clinic. Nicotine Replacement Therapy, and/or medications (e.g. Zyban or Chantix) can be prescribed to assist those wanting to quit. DoD civilian employees (non-contractors) will only be authorized TUC products through the OH Clinic. Initial evaluations will be through Army Public Health Nursing (APHN), Tobacco Cessation Program, at 912-435-5071/5101. Once APHN nurses have counseled civilian employees on their available options (usually through online training (www.ucanquit2.org website), or through the on-site 4-week intensive intervention training), employees will advise their supervisors that would like to seek treatment through the OH Clinic and will be given appropriate time off work to complete online classes, in-person classes, and to see the provider in the OH Clinic. The OH Clinic will provide employees with clinic documentation to substantiate participation in this program.

(5) Outpatients will be instructed to first consult their primary care manager for tobacco cessation services, but can also contact the Tobacco Cessation Program Coordinator at 912-435-5071/5101, regarding information and/or classes.

h. Safety Manager.

(1) Maintains and communicates the tobacco-free campus policy.

(2) Includes the tobacco-free campus policy in annual Safety Briefings and New Employee Orientation briefings.

i. Public Affairs Office.

(1) Provides information to visitors and outpatients, using in-house, intranet, internet, and other social media outlets regarding the tobacco-free campus policy.

(2) Describes tobacco cessation programs presently in place at FS/HAAF to any interested outside parties.

(3) Advertises the tobacco-free campus policy via the Frontline, FS Homepage, and local newspapers, TV, and radio stations on an ongoing basis, to increase visibility of tobacco-related morbidity and mortality.

(4) Takes advantage of recurring community forum meetings to inform population of this policy on a recurring basis.

j. Medical Providers. Inform all patients of the tobacco-free campus policy as part of the admission process. Assess tobacco use where possible in all outpatient visits and document counseling in AHLTA. Encourage patients to quit and direct all users of tobacco products who desire assistance to trained TUC providers within their respective clinics regarding information for available resources to quit.

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k. Staff.

(1) Encourage compliance with this policy by informing other employees, patients and visitors that use of tobacco products is prohibited on the medical campus.

(2) Understand that violations to this policy are subject to corrective action, as noted in paragraph 4, if they use tobacco products on the campus.

l. Supervisors. It is the responsibility of all leaders to support Commander's policies. Therefore, it is expected that all military and civilian supervisors maintain on their person, a minimum of two copies of the Information Card (Appendix A), to be used as needed, to educate violators of this policy and to use the perforated portion of the card to provide the Commander feedback on potential compliance issues (card is to be turned in to the Staff Duty Desk).

m. TRICARE Service Center/Call Center. Will inform patients booking appointments or making inquiries that all campuses are tobacco-free and that the policy applies to all patients, employees and visitors.

4. Policies and Procedures.

a. Use of all forms of tobacco products, such as cigarettes, e-cigarettes, cigars, pipes and smokeless tobacco, are prohibited on the campus, to include all roads, parking lots and sidewalks. See Appendix B (Signage Plan Memorandum and Boundaries) for maps of campus boundaries.

b. Signage in support of this tobacco-free campus policy will be posted in prominent, visible areas at each building entrance, throughout the parking areas, clinic waiting areas, ward nursing stations and information desks. The medical campus will be monitored for compliance with the tobacco-free policy by a daily walk-through of hospital buildings and grounds by the Staff Duty Officer (SDO), Security, Safety, and Facilities personnel. Records of these daily walk-throughs and noncompliance with the policy will be briefed to the Medical Executive Committee (MSEC) on a monthly basis, to provide recommendations to the Human Resources Division (HRD) (civilian and military) on enforcement and administrative procedures.

c. All staff will encourage compliance with this policy. The approach should be one of clarifying the policy and providing support for employees, patients and visitors. When a violation occurs, all military Noncommissioned Officers and Officers, as well as civilian supervisors, are expected to courteously inform offenders of the tobacco-free campus policy and hand offender a FS/HAAF Medical Tobacco-Free Campus information card (Appendix A), stating that the campus is tobacco-free. The staff member will perforate the card, fill out the required information, and drop off the ½ card at the Staff Duty Station, who will do periodic rollups of data for command staff. No personally identifiable information will be written on the card. The purpose of this surveillance method is for tracking and reporting purposes. The Chief, Public Health Services will make recommendations to the command, to increase enforcement activities by the Staff Duty Officer in those areas where the policy is being violated. The potential difficulty of enforcing the tobacco-free campus policy is acknowledged; however, the key to success will be leaders throughout the medical community supporting this effort.

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d. As a first-line measure for infringement of the tobacco-free campus policy, tobacco cessation support will be increased prior to the effective date of this policy. Enforcement activities will keep in mind that tobacco addiction and behavior modification is the problem, not the people. Per 5 USC §7901 (c) (4), tobacco cessation support can be provided to all civilian employees who desire to stop using tobacco products via education, pharmacological aids and tobacco cessation programs accessible through our OH Clinic. Military employees will access products and services through their primary care manager.

e. For repeated non-compliance, supervisors will counsel, and when appropriate, discipline staff for failure to comply with this policy. If the offender continues to use tobacco products on the campus, the employee's supervisor or department/division/clinic chief will coordinate with HRD for appropriate corrective action and discipline.

f. Failure to comply with the provisions of this policy may subject the military offender to adverse administrative action and/or criminal punishment under the Uniform Code of Military Justice (UCMJ). Violation of these same provisions by civilian employees will be considered as "failure to observe written regulations, orders, rules and procedures" and disciplinary actions will be administered, per Medical Command regulations or other directives. Repeat violations by a non-employee member of the public may form the basis for administrative action to bar the individual from the facility.



RONALD J. PLACE
COL, MC
Commanding

DISTRIBUTION:
Electronic Bulletin Board

MCUB-CO
SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

References

AR 600-63
Army Health Promotion

Winn Army Hospital Tobacco Use Cessation Program, 27 February 2012

The Joint Commission
Comprehensive Accreditation Manual for Hospitals (CAMH)

Title 18, United States Code (18 USC)
Uniform Code of Military Justice (UCMJ)

Title 5, United States Code (5 USC) Section 7901
Health Services Program

U.S. Department of Health and Human Services
The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon
General, 2006

Appendices

Appendix A: FS/HAAF Medical Tobacco Free Campus Information Card

Appendix B: Signage Plan Memorandum and Boundaries

MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

Appendix A: FS/HAAF Medical Tobacco Free Campus information card

PRINTED ON FRONT SIDE PERFORATED CARD

		
<u>Tobacco Cessation Patient Program Options</u>		
HAAF : 912 315-6500/6811		
Fort Stewart: 912 435-5071/5101		
www.smokefree.gov or www.ucanquit2.org		
<i>Because we care about your health and the health of those around you, our buildings, parking lots and grounds are tobacco-free.....</i>		
FOR STAFF USE ONLY:		
<i>(Please DO NOT include any personally identifiable information on this card)</i>		
I observed an individual violating the Tobacco-Free Campus Policy		
<i>Please check all that apply:</i>		
☐ MEDDAC Military personnel (Circle: ENLISTED or OFFICER)		
☐ MEDDAC Civilian employee		
☐ Other military or civilian employees		
☐ Government Contractor		
☐ Other (family member/patient/etc)		
☐ Location of violation (example, back loading doc, near front outpatient entrance, etc) _____		
Day of the week _____ Time of Day _____		

PRINTED ON BACK SIDE OF CARD

IT IS THE RESPONSIBILITY OF ALL LEADERS TO SUPPORT THE COMMANDER'S POLICIES. THANK YOU FOR YOUR TIME TO ENSURE WE MAINTAIN THE HEALTHIEST ENVI- RONMENT FOR OUR EMPLOYEES AND BENEFICIARIES! (TURN THIS CARD INTO THE STAFF DUTY OFFICER OR EMAIL INFORMATION TO THE COMMAND SERGEANT MAJOR) MEDDAC COMMANDER

Public Health Assessment Report No. S.0008081-12, June 2012–September 2013

MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

Appendix B: (Signage Plan Memorandum and Boundaries)

MCUB-DPM

24 May 2012

MEMORANDUM THRU Chief, Logistics

FOR CPT Davis

SUBJECT: Reproduction and Installation of "Tobacco Free Campus" Signs

1. Request the reproduction and installation of signage for the new hospital Tobacco-Free Campus policy. Funds will be allocated from core hospital funds.
2. These signs will be placed on certain entrances of the parking lot and on the exterior of: Winn Hospital and EMS building, Tri-care building, Hawks Clinic, WTU, 4th BDE Clinic, Richmond Hill Medical Home and Hunter Army Air Field (HAAF) Tuttle Clinic and EMS building, Dental Clinic#1 and #4, and the VET Clinic. See also Appendices for map layout and sign placement.
3. Signs will be displayed as "stand alone" or affixed on a post or existing building or similar structure to alert staff, patients and visitors to the new policy.
4. The following are locations and quantities of signs required (total of 136 signs):
 - a. Winn Hospital --- 41 each
 - b. Tri-care building/ EMS -- -5 each
 - c. Hawks Clinic--- 13 each
 - d. WTU--- 25 each
 - e. 4th BDE--- 9 each
 - f. Richmond Hill Medical Home--- 4 each
 - g. HAAF Tuttle Clinic/ EMS--- 14 each
 - h. Behavior Health building #9242--- 2 each
 - i. Dental Clinic#1--- 8 each
 - j. Dental Clinic#4---7 each
 - k. FS Vet Clinic---4 each
 - l. New Hospital Expansion Project---4 each
5. Since there are no map layout available for 4th BDE, Tri-care building, Behavior Health building #9242 and Richmond Hill Medical Home. Signs will be placed in the following locations:
 - a. 4th BDE--two in the front of the building (grassy area), two in the rear of building just before entering building, two each parking lot entrances and two on either front end of the building, one on the building main entrance (11 total)
 - b. Tri-care/ EMS building--one sign placed on side of building facing Harmon Ave and one just before main entrance. EMS--one sign placed on both parking lot entrances and one sign placed on building main entrance (5 total)
 - c. Behavior Health building #9242--- one sign placed in front of main entrance and one placed in small grassy island to the right of building (2 total)
 - d. Richmond Hill Medical Home---one attached to building on primary wall just before entering clinic and three signs one on each column (3 total)

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6. Clinic NCOICs or other designated representative will be responsible for coordinating with logistics to remove and dispose of all existing cigarette Urns and to change the signage on existing shacks/gazebos to "No Smoking". New signs must be temporarily covered with a plastic bag or other such material up until COB the day before implementation.

7. Point of contact for this memorandum is the undersigned at 912-435-5414 or email luis.a.rivera@us.army.mil or MAJ Ellis at 912-435-5065.

//original signed//

LUIS A RIVERA

SFC, USA

NCOIC, Department of Preventive Medicine

Enclosures:

ANNEX A
Winn Army Community Hospital

ANNEX B
Tuttle Army Health Clinic

ANNEX C
Hawks Troop Medical Clinic

ANNEX D
EMS Building #1442 (HAAF), Next to Tuttle Army Health Clinic

ANNEX E
Dental Clinic #1

ANNEX F
Dental Clinic #4

ANNEX G
Vet Clinic

ANNEX H
Tobacco Free Campus sign

ANNEX I
Example of Internal Use Sign

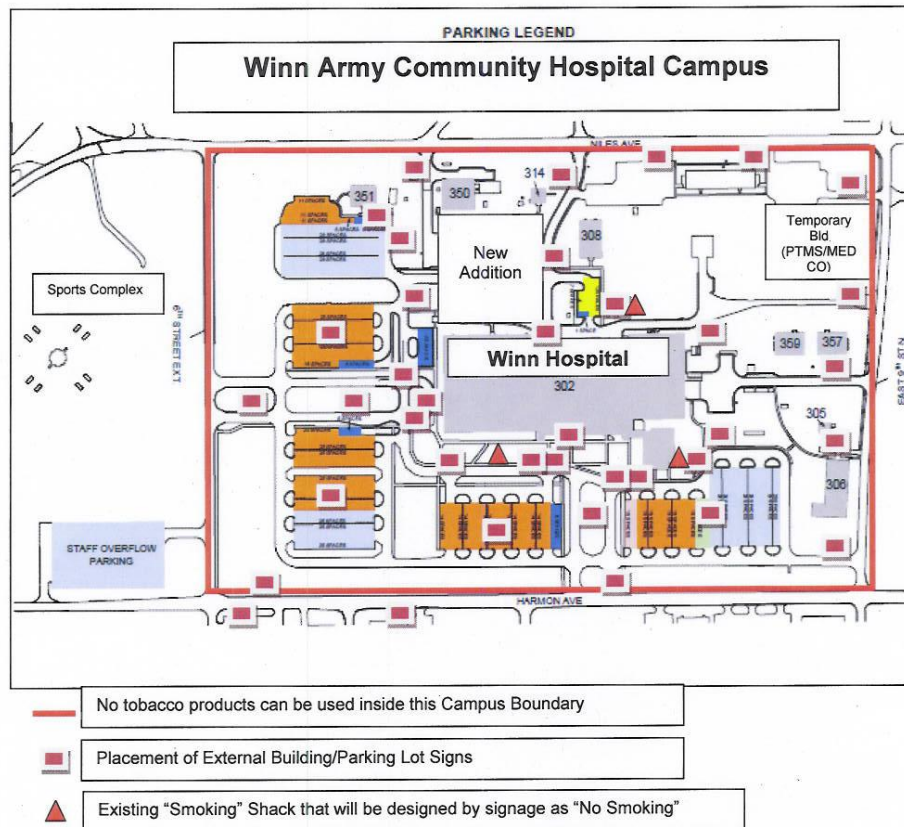
MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX A

Winn Army Community Hospital

Area enclosed by 6th Street Ext, East 9th St. N, Niles Ave, and Harmon Ave.

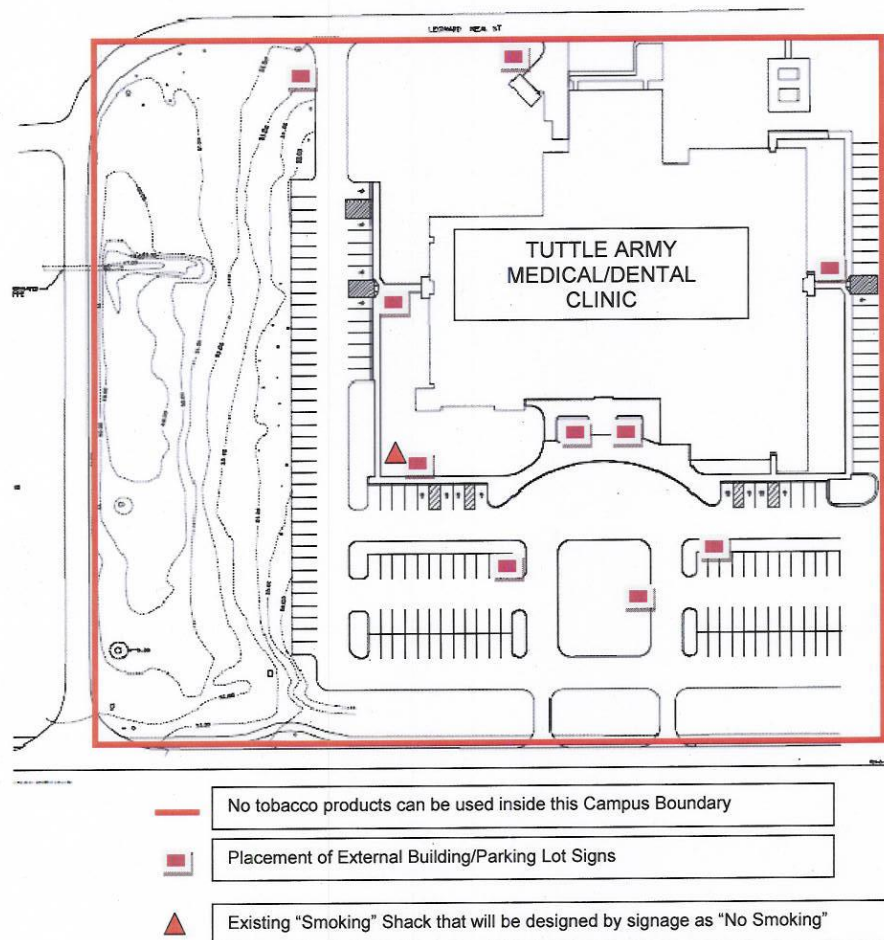


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SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX B

Tuttle Army Health Clinic, Hunter Army Air Field, Savannah, GA

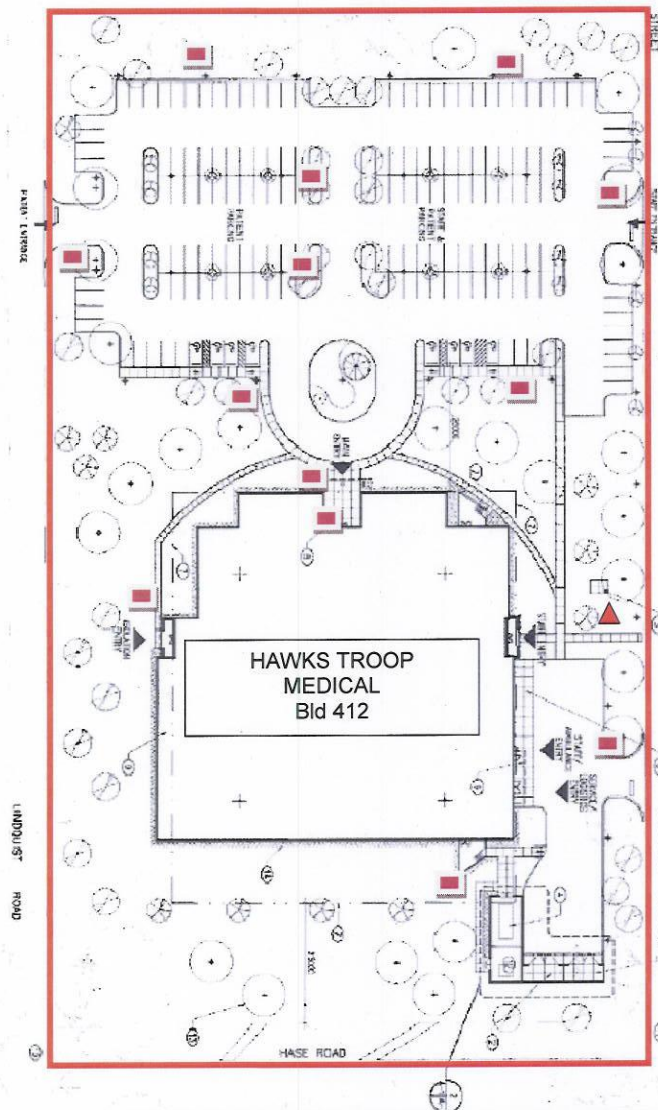


MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX C

Hawks Troop Medical Clinic



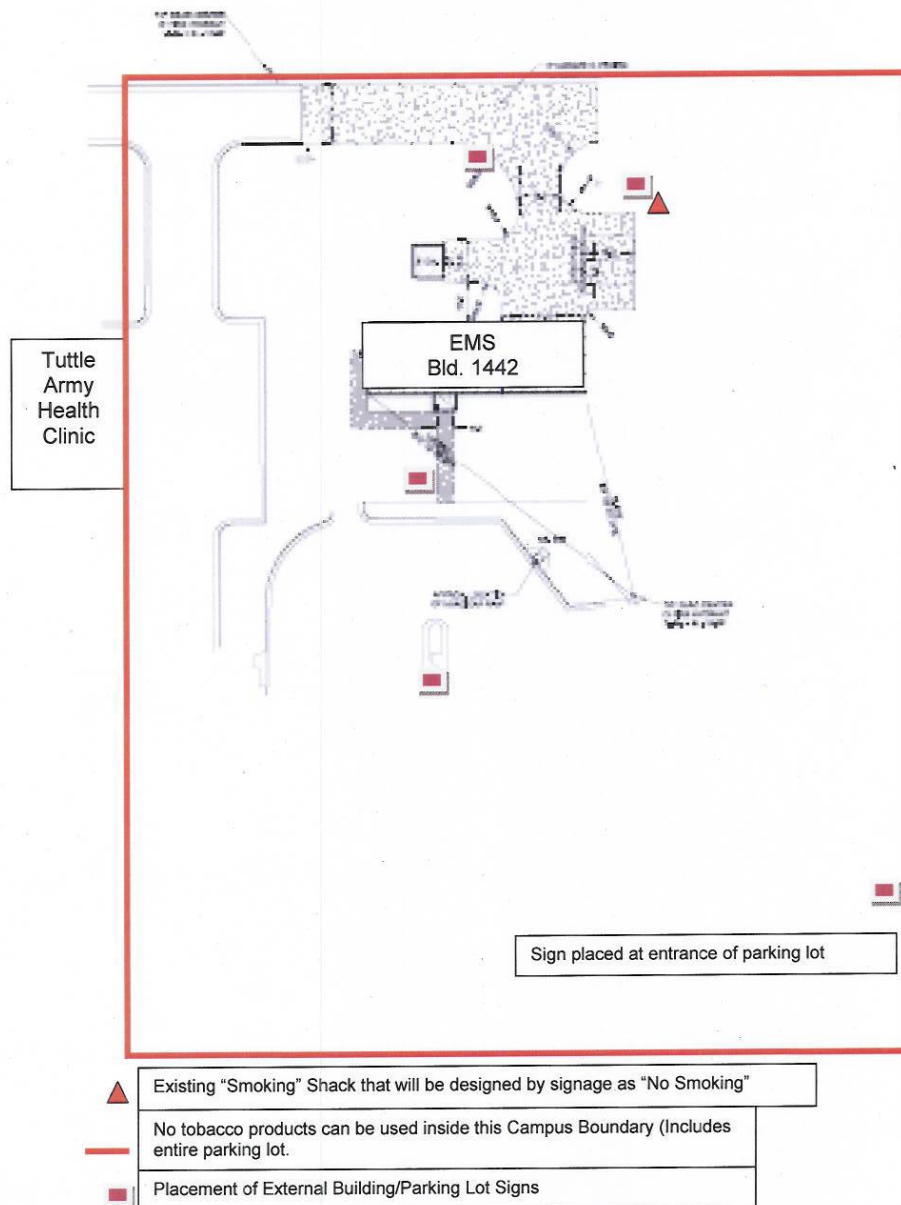
- | | |
|--|---|
| | No tobacco products can be used inside this Campus Boundary |
| | Placement of External Building/Parking Lot Signs |
| | Existing "Smoking" Shack that will be designed by signage as "No Smoking" |

MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX D

EMS Building #1442 (HAAF), Next to Tuttle Army Health Clinic

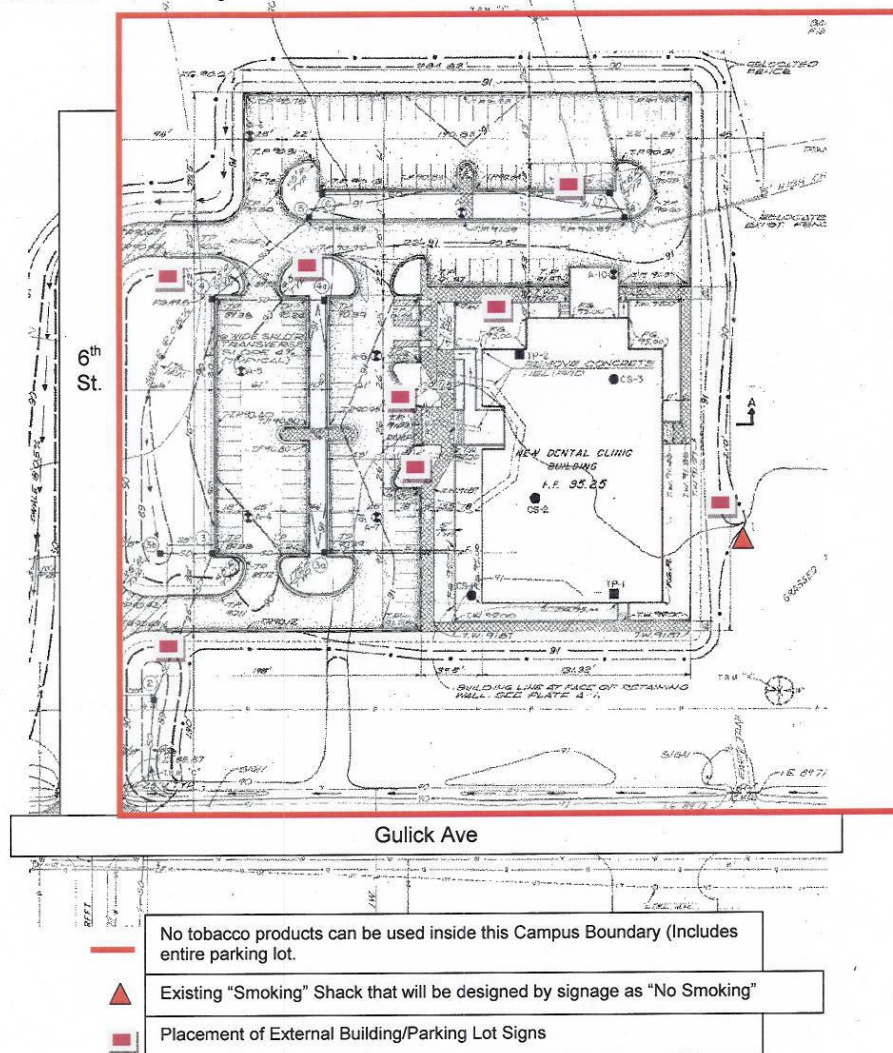


MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX E

Dental Clinic #1, Building #440

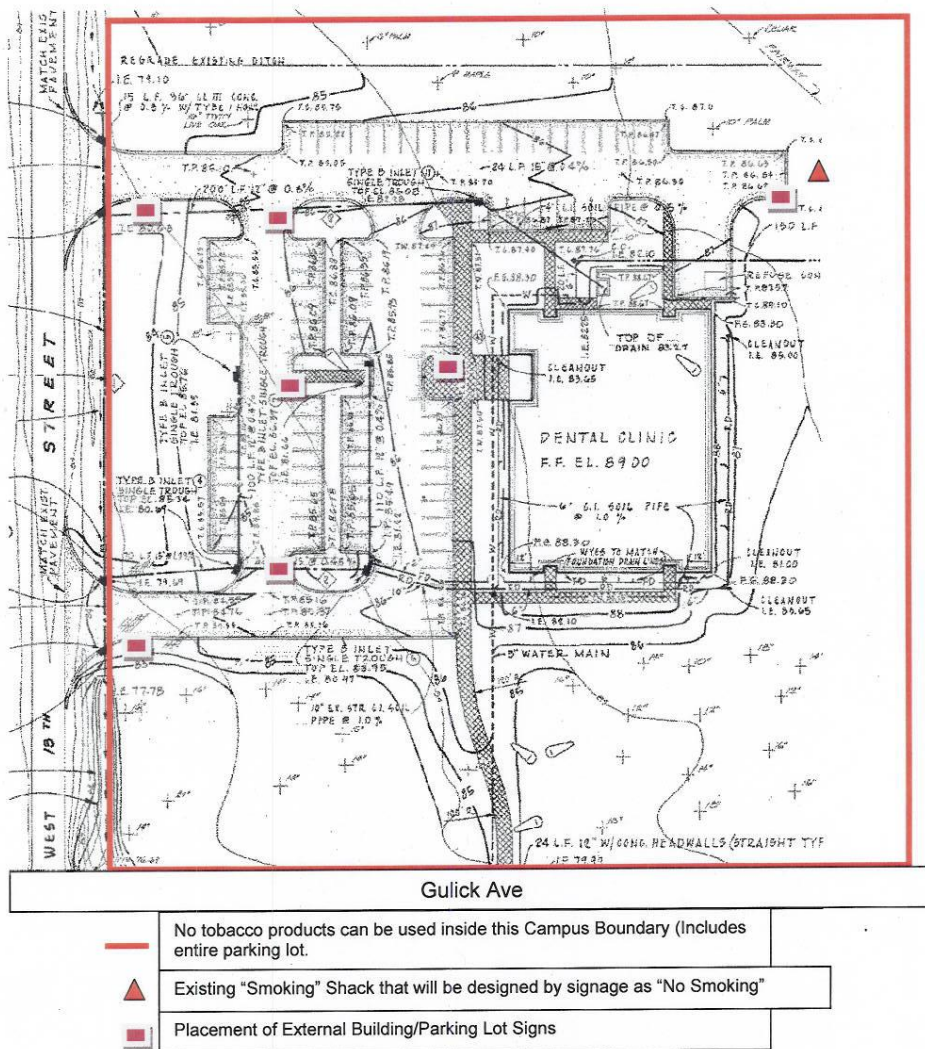


MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX F

Dental Clinic #4, Building #2115



MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX G

Fort Stewart Vet Clinic



— No tobacco products can be used inside this Campus Boundary (Includes entire parking lot.)

▲ Existing "Smoking" Shack that will be designed by signage as "No Smoking"

■ Placement of External Building/Parking Lot Signs

MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

ANNEX H

External Sign

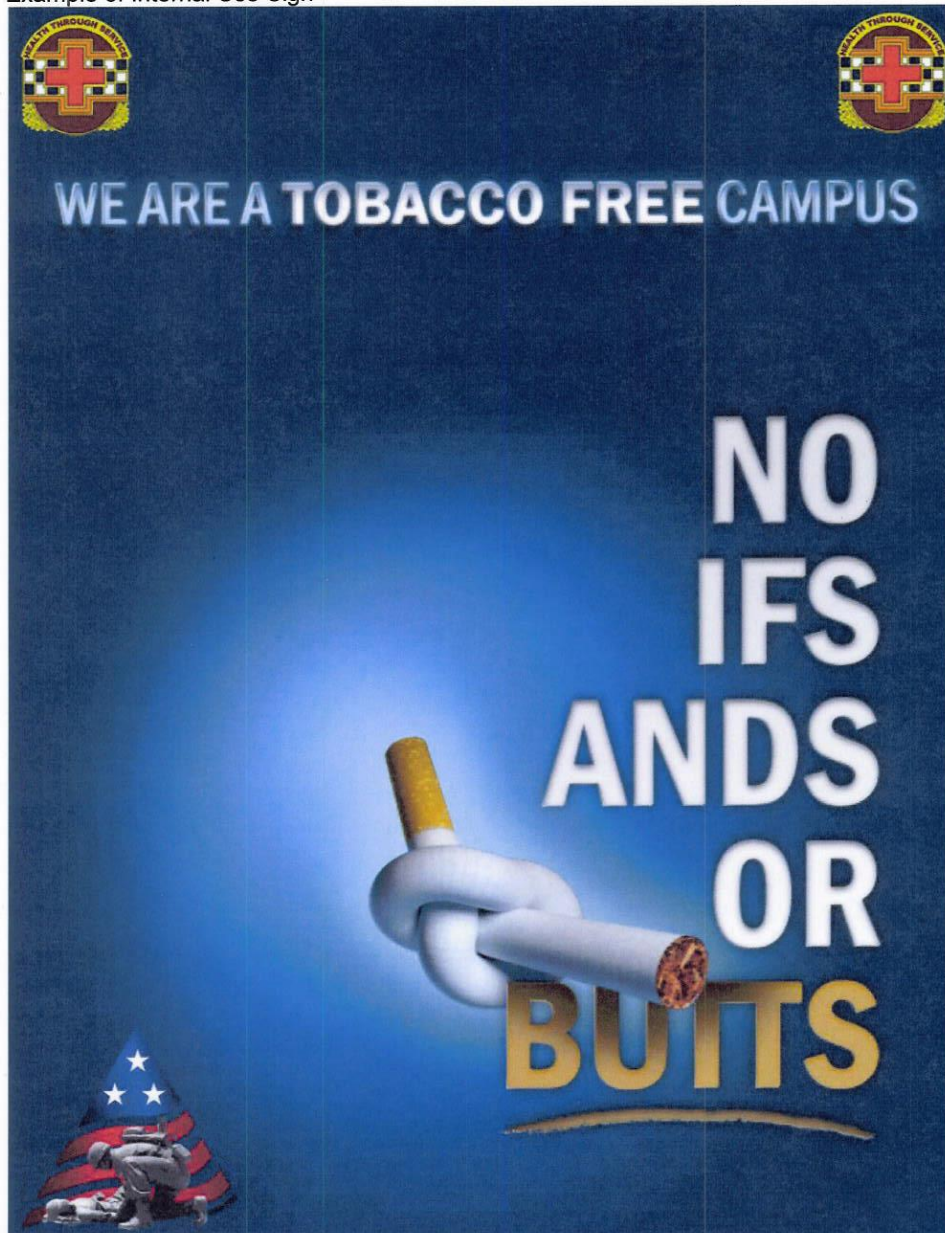


MCUB-CO

SUBJECT: Commander's Policy Memorandum Number 21 - Tobacco-Free Campus Policy

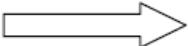
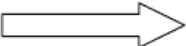
ANNEX I

Example of Internal Use Sign



Appendix C Tobacco-Free Campus Logic Model

Logic Model: Elimination of Secondhand Smoke at Winn Army Community Hospital

INPUTS				 OUTCOMES		
	ACTIVITIES	PARTICIPANTS	OUTPUTS	SHORT TERM (0-2 years)	MEDIUM TERM (2-4 years)	LONG TERM (5+ years)
What we invest: Policy development working group members from the following departments: • CSM • LOG • HRD • Union • APHN • PAO • equal distribution of current smokers, past smokers, and non-smokers AIPH SMEs Best practices/guidance from Army Medical Treatment Facilities (MTFs) and civilian literature	What we do: Policy development via working group Marketing efforts to include education on health hazards of secondhand smoke and tobacco free policy Policy approval process Tobacco cessation education and treatment Occupational health services for civilian employees Tobacco free campus town hall for military and civilian hospital employees Evaluation activities	Whom we reach: Military and civilian hospital employees	What do we produce: Approved policy Policy compliance guidelines Marketing educational handouts Information paper on lessons learned from tobacco free policy attempts Civilian employee benefits including medication and classes	What is the short-term impact and measures expected? Decreased secondhand smoke exposure Increased knowledge of health hazards secondhand smoke, increased awareness, improved attitudes towards, and increased support for tobacco free policy High levels of compliance to the tobacco free policy Increased attendance in tobacco cessation classes/increased participation tobacco cessation activities Decreased cigarette consumption per day among tobacco using employees Decreased smoking prevalence among employees Decrease smokeless tobacco prevalence among employees	What is the medium term impact and measures expected? Decreasing % of cigarette smokers (effect of WINN's cessation efforts) Decreased sick days Increased productivity	What is the long-term impact and measures you expect? Decreasing % of cigarette smokers Reduced tobacco-related morbidity and mortality

Appendix D

QUESTIONNAIRES

**Winn Army Community Hospital Tobacco-Free Campus Policy Questionnaire—
Baseline**

**Fort Stewart/HAAF Tobacco-free Medical Campus Policy Questionnaire
Post 12-Month Survey**

Winn Army Community Hospital Tobacco-Free Campus Policy Questionnaire— Baseline

Instructions: Winn Army Community Hospital's Department of Preventive Medicine would like to better understand hospital employees' health practices with regards to attitudes, behaviors, and knowledge about secondhand smoke and smoking. The questionnaire results will be used to inform and evaluate a military treatment facility tobacco-free campus policy. We will not report any personal information or personal health information reported in this survey. You will not be personally identified in any report or any output of any type. Please complete the questionnaire by May 25, 2012. If you have further questions, please contact MAJ Shannon Ellis, Department of Preventive Medicine Chief, by phone: 912-435-5071 or by email" Shannon.b.ellis@us.army.mil.

Knowledge of health hazards of secondhand smoke

1. Secondhand smoke is the smoke you breathe from other people's cigarettes, cigars, and pipes. Would you say that breathing smoke from other people's cigarettes could cause:

Health issue	Yes	No	Don't know
a. Lung cancer in adults?	☐	☐	☐
b. Respiratory problems in children?	☐	☐	☐
c. Ear infections in children?	☐	☐	☐
d. Heart disease in adults?	☐	☐	☐
e. Sickle cell anemia?	☐	☐	☐
f. Vision Problems?	☐	☐	☐
g. Sudden Infant Death Syndrome (SIDS)?	☐	☐	☐
h. Colon cancer in adults?	☐	☐	☐

2. In general, how harmful do you feel secondhand smoke is on the health of a non-smoker?
- ☐ Not at all harmful
 - ☐ A little harmful
 - ☐ Somewhat harmful
 - ☐ Very harmful

Attitudes towards tobacco-free policy

3. How strongly do you agree or disagree with each of the following statements:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Smoking on or next to hospital grounds has a negative effect on the public's image of the hospital	☐	☐	☐	☐	☐
b. Smoking affects workplace morale negatively	☐	☐	☐	☐	☐
c. Excessive breaks to smoke affect productivity	☐	☐	☐	☐	☐
d. Exposure to tobacco smoke is very dangerous	☐	☐	☐	☐	☐
e. Non smokers should breathe air that is free of tobacco smoke	☐	☐	☐	☐	☐

4. Are you ever bothered or affected by smoke in the workplace?

- ☐ Yes (Answer question 4a)
☐ No (Go to question 5)

a. How does secondhand smoking in our workplace affect you? (Check all that apply)

- ☐ I have physical reactions (headaches, stinging eyes, nausea, etc.).
☐ I have sensitivity to the smell of smoke on others.
☐ I have medical/health complications negatively affected by secondhand smoke (heart disease, respiratory disease, allergies, etc.).
☐ I feel the need to get away from my work area for a breath of fresh air.
☐ I have difficulty sleeping at night due to smoke-related symptoms (nasal congestion, etc.).
☐ I have difficulty concentrating on my work because I am annoyed by the presence of secondhand smoke.
☐ I feel that my productivity at work is negatively affected by the presence of secondhand smoke.
☐ I feel uncomfortable asking people who smoke not to smoke around me.
☐ I sense tensions between smokers and non-smokers.
☐ Other (please explain: _____)

Support towards tobacco-free policy

5. At Winn Army Community Hospital, do you think tobacco use should be allowed in all areas, some areas, or not allowed at all?
- ☐ Allowed in all areas
 - ☐ Allowed in some areas
 - ☐ Not allowed at all
 - ☐ Don't know/Not sure
6. Compared to our current tobacco policy (smoking only at designated areas and 50 feet away from buildings), would you prefer a stronger workplace tobacco use policy, a weaker tobacco use workplace policy, or no change?
- ☐ Prefer stronger policy
 - ☐ Prefer weaker policy
 - ☐ Prefer no change
 - ☐ Don't know/Not sure
7. The implementation of a tobacco-free policy should include the provision of: (Check all that apply)
- ☐ Quitting information
 - ☐ Time off to attend a quitting courses at work
 - ☐ Other _____

Tobacco-free-policy awareness

8. How satisfied/dissatisfied are you with the existing tobacco policy concerning tobacco use at USAMEDDAC Fort Stewart/HAAF?
- ☐ Not at all satisfied
 - ☐ Slightly dissatisfied
 - ☐ Neither satisfied nor dissatisfied
 - ☐ Slightly satisfied
 - ☐ Very satisfied
 - ☐ I am unfamiliar with the existing tobacco-free policy
9. Does your health insurance include coverage for treatment to quit smoking cigarettes or to stop using other tobacco products?
- ☐ Yes
 - ☐ No
 - ☐ N/A. I don't have health insurance.
 - ☐ Don't know/Not Sure

10. How familiar are you with the areas on Winn Army Community Hospital's campus where you can and cannot smoke?

- ☐ Not all a familiar
- ☐ Slightly unfamiliar
- ☐ Neither familiar nor unfamiliar
- ☐ Slightly familiar
- ☐ Very familiar

Reported exposure to secondhand smoke

11. During the past 7 work days, on average, how many days were you exposed to other people's tobacco smoke (including the smell of smoke on others)?

- ☐ None (skip to 12)
- ☐ 1 day (Go to question 11a)
- ☐ 2 days (Go to question 11a)
- ☐ 3 days (Go to question 11a)
- ☐ 4 days (Go to question 11a)
- ☐ 5 days (Go to question 11a)
- ☐ 6 days (Go to question 11a)
- ☐ 7 days (Go to question 11a)
- ☐ Was not at work in the past 7 days (skip to 12)

a. On these days, about how many hours per day were you exposed to other people's smoke?

- ☐ Less than an hour
- ☐ 1-4 hours
- ☐ 5-8 hours
- ☐ or more hours

Tobacco-use status

Smoking Prevalence

12. Have you smoked at least 100 cigarettes in your entire life?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

13. Do you now smoke cigarettes every day, some days, or not at all?

- ☐ Every day
- ☐ Some days
- ☐ Not at all (Go to Question 16)

Tobacco Consumption

14. On the average (when you're not at work), about how many cigarettes a day do you now smoke?

- ☐ Less than 5 cigarettes a day
- ☐ 6-10 cigarettes a day
- ☐ 11 or more cigarettes a day

15. On an average work day, how many cigarettes do you smoke at work? (including meals and breaks)

- ☐ Less than 5 cigarettes a day
- ☐ 6-10 cigarettes a day
- ☐ 11 or more cigarettes a day

16. Do you now use smokeless tobacco products (chew, dipping, and pinching) every day, some days, or not at all??

- ☐ Every day
- ☐ Some days
- ☐ Not at all (Go to Question 23)

(If respondent answers "Not at all" to questions 13 and 16, skip to question 23)

Motivation to quit tobacco use

17. Would you like to stop using tobacco products?

- ☐ Yes (Continue to question 18)
- ☐ No (Skip to Question 20)
- ☐ Don't know/Not sure

18. Are you contemplating quitting tobacco use in the next 6 months (but not in the next 30 days)?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

19. Are you planning to quit tobacco use in the next 30 days?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

Participation in Tobacco-cessation Activities

20. During the past 12 months, have you stopped using tobacco for one day or longer because you were trying to quit smoking or using smokeless tobacco products?

- ☐ Yes (Continue to question 21)
- ☐ No (Go to question 23)

21. The last time you tried to stop using tobacco products, did you use any assistance such as classes, counseling, and/or medications?

- ☐ Yes (Continue to question 22)
- ☐ No (Go to question 23)

22. If you used assistance, what type of assistance did you use the last time you tried to stop using tobacco products? Check all that apply.

- ☐ A tobacco-cessation clinic or class
- ☐ A telephone quitline
- ☐ One-on-one counseling from a doctor or nurse
- ☐ Self-help material, books, or videos
- ☐ Acupuncture
- ☐ Medications
- ☐ e-cigarettes
- ☐ Hypnosis
- ☐ Other (Please explain: _____)

Productivity

23. In the past 12 months, how many sick days have you taken due to a respiratory illness such as flu (influenza), bronchitis, and chronic obstructive pulmonary disease (COPD)?

_____ Number of days

Long-term Health Outcomes

24. Have you ever been diagnosed with any of the following health conditions (please mark one column for each row)?

Health condition	Yes	No
a. Heart attack	☐	☐
b. Emphysema	☐	☐
c. Stroke	☐	☐
d. Chronic Bronchitis	☐	☐
e. Lung cancer	☐	☐
f. Lip cancer	☐	☐
g. Oral cavity cancer	☐	☐
h. Pharynx cancer	☐	☐
i. Esophagus cancer	☐	☐
j. Larynx cancer (voicebox) cancer	☐	☐
k. Pancreatic cancer	☐	☐
l. Cervical cancer	☐	☐
m. Bladder cancer	☐	☐
n. Kidney cancer	☐	☐

Demographics

25. What is your age in years?

- ☐ 18-24
- ☐ 25-34
- ☐ 35-49
- ☐ 50-64
- ☐ 65 and older

26. What is your gender?

- ☐ Male
- ☐ Female

27. Are you:

Yes No

- a. DENTAC?
- b. VETCOM?

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28. How would you describe your position at Winn Army Community Hospital?

- ☐ Administration
- ☐ Allied health professional
- ☐ Service (food service, environmental service)
- ☐ Physician/PA/NP
- ☐ Other (please specify)_____

29. Are you active duty?

- ☐ Yes
- ☐ No

30. Have you ever been deployed?

- ☐ Yes
- ☐ No

Thank you for completing this survey!

**Fort Stewart/HAAF Tobacco-free Medical Campus Policy Questionnaire
Post 12-Month Survey**

Instructions: U.S. ArmyMEDDAC Fort Stewart Department of Preventive Medicine would like to evaluate the military treatment facility (MTF) tobacco-free campus policy and better understand employees' health practices with regards to attitudes, behaviors, and knowledge about secondhand smoke and smoking. We will not report any personal information or personal health information reported in this survey. You will not be personally identified in any report or any output of any type.

If you have further questions, please contact LTC Shannon Ellis, Department of Preventive Medicine Physician, by phone 912-435-5065 or by email Shannon.b.ellis.mil@mail.mil.

Please complete this survey in one sitting and DO NOT use the browser's back button.

Knowledge of health hazards of secondhand smoke

1. Secondhand smoke is the smoke you breathe from other people's cigarettes, cigars, and pipes. Would you say that breathing smoke from other people's cigarettes could cause:

	Yes	No	Don't know
Lung cancer in adults?	☐	☐	☐
Respiratory problems in children?	☐	☐	☐
Ear infections in children?	☐	☐	☐
Heart disease in adults?	☐	☐	☐
Sickle cell anemia?	☐	☐	☐
Vision problems?	☐	☐	☐
Sudden Infant Death Syndrome (SIDS)?	☐	☐	☐
Colon cancer in adults?	☐	☐	☐
Skin irritation?	☐	☐	☐
Health problems among pregnant women and fetuses?	☐	☐	☐

2. In general, how harmful do you feel secondhand smoke is on the health of a non smoker?

- ☐ Not at all harmful
- ☐ A little harmful
- ☐ Somewhat harmful
- ☐ Very harmful

Attitudes toward tobacco-free policy

3. How strongly do you agree or disagree with each of the following statements:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Smoking on or next to the medical campus grounds has a negative effect on the public's image of the medical campus	☐	☐	☐	☐	☐
Smoking affects workplace morale negatively	☐	☐	☐	☐	☐
Excessive breaks to smoke affect productivity	☐	☐	☐	☐	☐
Exposure to tobacco smoke is very dangerous	☐	☐	☐	☐	☐
Non smokers should breathe air that is free of tobacco smoke	☐	☐	☐	☐	☐

4. Are you ever bothered or affected by smoke in the workplace?

- ☐ Yes
☐ No

***If you answered "yes" to this question continue to question 4a. If you answered "no" continue to question 5.*

4a. How does secondhand smoking in our workplace affect you? (Check all that apply)

- ☐ I have physical reactions (headaches, stinging eyes, nausea, etc.).
☐ I have sensitivity to the smell of smoke on others.
☐ I have medical/health complications negatively affected by secondhand smoke (heart disease, respiratory disease, allergies, etc.).
☐ I feel the need to get away from my work area for a breath of fresh air.
☐ I have difficulty sleeping at night due to smoke-related symptoms (nasal congestion etc.).
☐ I have difficulty concentrating on my work because I am annoyed by the presence of secondhand smoke.
☐ I feel that my productivity at work is negatively affected by the presence of secondhand smoke.
☐ I feel uncomfortable asking people who smoke not to smoke around me.
☐ I sense tensions between smokers and non smokers.
☐ Other (please explain) _____

Support towards tobacco-free policy

5. At your medical campus on Fort Stewart/HAAF, do you think tobacco use should be allowed in all areas, some areas, or not allowed at all?

- ☐ Not allowed at all
- ☐ Allowed in some areas
- ☐ Allowed in all areas
- ☐ Don't know/Not sure

6. Compared to our current tobacco policy (no tobacco use anywhere on the medical campus), would you prefer a stronger workplace tobacco use policy, a weaker tobacco use workplace policy, or no change?

- ☐ Prefer stronger policy
- ☐ Prefer weaker policy
- ☐ Prefer no change
- ☐ Don't know/Not sure

Tobacco-free policy awareness

7. How satisfied/dissatisfied are you with the existing tobacco policy concerning tobacco use on the medical campus at Fort Stewart/HAAF?

- ☐ Very dissatisfied
- ☐ Slightly dissatisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Slightly satisfied
- ☐ Very satisfied
- ☐ I am unfamiliar with the existing tobacco-free policy

8. Does your health insurance include coverage for treatment to quit smoking cigarettes or to stop using other tobacco products?

- ☐ Yes
- ☐ No
- ☐ N/A. I don't have health insurance
- ☐ Don't know/Not sure

9. How familiar are you with the medical campus boundaries where you can and cannot smoke or use other tobacco products?

- ☐ Not all a familiar
- ☐ Slightly unfamiliar
- ☐ Neither familiar nor unfamiliar
- ☐ Slightly familiar
- ☐ Very familiar

Reported exposure to secondhand smoke

10. During the past 7 work days, on average, how many days were you exposed to other people's tobacco smoke (including the smell of smoke on others)?

- ☐ None
- ☐ 1 day
- ☐ 2 days
- ☐ 3 days
- ☐ 4 days
- ☐ days
- ☐ days
- ☐ days

☐ Was not at work in the past 7 days

***If you answered "none" or "Was not at work in the past 7 days" please skip to question 11. All other answers will continue to 10a.*

10a. On these days, about how many hours per day were you exposed to other people's smoke?

Hours per day _____

Tobacco use

11. Have you smoked at least 100 cigarettes in your entire life?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

12. Do you now smoke cigarettes every day, some days, or not at all?

- ☐ Every day
- ☐ Some days
- ☐ Not at all - I quit smoking less than 12 months ago
- ☐ Not at all - I never smoked OR I quit smoking more than a year ago

***If you answered "Every day" or "Some days" skip to question 14.*

If you answered "Not at all – I quit less than 12 month ago" continue to question 13.

If you answered "Not at all – I never smoked OR I quit smoking more than a year ago" please skip to question 16.

13. What type of assistance, if any, did you use when you stopped smoking? Check all that apply.

- ☐ A tobacco-cessation clinic or class
- ☐ A telephone quitline
- ☐ One-on-one counseling from a doctor or nurse
- ☐ Self-help material, books, or videos
- ☐ Acupuncture
- ☐ Medications (prescriptions, nicotine patches, nicotine gum, etc.)
- ☐ e-cigarettes
- ☐ Hypnosis
- ☐ Other (Please explain) _____
- ☐ N/A. I did not use any type of assistance when I stopped smoking.

**After answering this question please skip to question 16.

Tobacco consumption

14. On the average (when you're not at work), about how many cigarettes a day do you now smoke?

Number of cigarettes _____

15. On an average work day, how many cigarettes do you smoke at work? (including meals and breaks)

Number of cigarettes _____

Smokeless tobacco consumption

16. Do you now use smokeless tobacco products (chew, dipping, and pinching) every day, some days, or not at all?

- ☐ Every day
- ☐ Some days
- ☐ Not at all - I quit using smokeless tobacco less than 12 months ago
- ☐ Not at all - I never used smokeless tobacco OR I quit more than a year ago

**If you answered "Every day" or "Some days" skip to question 18.

If you answered "Not at all – I quit less than 12 month ago" continue to question 17.

If you answered "Not at all – I never used smokeless OR I quit more than a year ago" please skip to question 24.

17. What type of assistance, if any, did you use when you stopped using smokeless tobacco?
Check all that apply.

- ☐ A tobacco-cessation clinic or class
- ☐ A telephone quitline
- ☐ One-on-one counseling from a doctor or nurse
- ☐ Self-help material, books, or videos
- ☐ Acupuncture
- ☐ Medications (prescriptions, nicotine patches, nicotine gum, etc.)
- ☐ e-cigarettes
- ☐ Hypnosis
- ☐ Other (Please explain) _____
- ☐ N/A. I did not use any type of assistance when I stopped using smokeless tobacco.

****After answering this question please skip to question 23.**

Motivation to quit tobacco use

18. Would you like to stop using tobacco products?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

*****If you answered "Yes" or "Don't know/Not sure" please continue to question 19. If you answered "No", skip to question 21.***

19. Are you planning to quit tobacco use in the next 30 days?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

20. Are you contemplating quitting tobacco use in the next 6 months (but not in the next 30 days)?

- ☐ Yes
- ☐ No
- ☐ Don't know/Not sure

Participation in tobacco-cessation activities

21. Since July 2012, have you stopped using all tobacco for one day or longer because you were trying to quit using tobacco products?

- ☐ Yes
- ☐ No

***If you answered "Yes", please continue to question 22. If you answered "No", skip to question 23.*

22. What type of assistance, if any, did you use the last time you tried to stop using tobacco products? Check all that apply.

- ☐ A tobacco-cessation clinic or class
- ☐ A telephone quitline
- ☐ One-on-one counseling from a doctor or nurse
- ☐ Self-help material, books, or videos
- ☐ Acupuncture
- ☐ Medications (prescriptions, nicotine patches, nicotine gum, etc.)
- ☐ e-cigarettes
- ☐ Hypnosis
- ☐ Other (Please explain) _____
- ☐ N/A. I did not use any type of assistance the last time I tried to stop using tobacco.

23. How has the tobacco-free campus policy affected your tobacco use? Check all that apply.

- ☐ I use less tobacco at work
- ☐ I use more tobacco at work
- ☐ I use less tobacco at home
- ☐ I use more tobacco at home
- ☐ I switched from using cigarettes to smokeless tobacco
- ☐ I quit using tobacco
- ☐ I am more motivated to quit using tobacco
- ☐ I am less motivated to quit using tobacco
- ☐ No change
- ☐ Other (Please specify) _____

Compliance to the tobacco-use policy

24. Since July 2012, estimate the number of people whom you observed violate the tobacco-free campus policy (i.e., used tobacco products on the medical campus)?

Number of people _____

Awareness of local tobacco-cessation program

25. How aware are you of the MEDDAC's Tobacco-cessation Clinic?

- ☐ Not at all aware
- ☐ Slightly aware
- ☐ Somewhat aware
- ☐ Moderately aware
- ☐ Very aware

26. Who is allowed to access the MEDDAC's Tobacco-cessation Clinic's services?

- ☐ Active-duty employees only
- ☐ DOD Civilian employees (including contractors) only
- ☐ Contractors only
- ☐ Military and DOD Civilian (excluding contractors) employees

27. What is the fee to use the MEDDAC's Tobacco-Cessation Clinic's services?

- ☐ Participants pay the full fee for services and medication
- ☐ Participants pay half the fee and their insurance pays the other half of fees for services and medication
- ☐ Participants do not pay any fee for services and medication

28. What services are included in the MEDDAC's Tobacco-cessation Clinic? (Check all that apply)

- ☐ TRICARE Smoking Quit Line 1-877-414-9949
- ☐ quitnet.com
- ☐ Georgia Tobacco Quit Line 1-877-270-STOP
- ☐ ucanquit2.org
- ☐ Tobacco-cessation classes at Liberty Regional Medical Center
- ☐ Facilitated Group Counseling at Tuttle Library
- ☐ smokefree.gov
- ☐ UnitedHealthcare Tobacco-cessation Wellness Coaching Program

Productivity

29. Since July 2012, how many sick days have you taken due to a respiratory illness such as flu (influenza), bronchitis, and chronic obstructive pulmonary disease (COPD)?

If you have not taken any sick days due to respiratory illness, enter 00.

Number of sick days _____

Long-term health outcomes

30. Have you ever been diagnosed with any of the following health conditions? Please mark one column for each row.

	Yes	No	Decline to answer
Heart attack	☐	☐	☐
Emphysema	☐	☐	☐
Stroke	☐	☐	☐
Chronic Bronchitis	☐	☐	☐
Lung cancer	☐	☐	☐
Lip cancer	☐	☐	☐
Oral cavity cancer	☐	☐	☐
Pharynx cancer	☐	☐	☐
Esophagus cancer	☐	☐	☐
Larynx cancer (voicebox) cancer	☐	☐	☐
Pancreatic cancer	☐	☐	☐
Cervical cancer	☐	☐	☐
Bladder cancer	☐	☐	☐
Kidney cancer	☐	☐	☐

Demographics

31. What is your age in years?

- ☐ 18-24
- ☐ 25-34
- ☐ 35-49
- ☐ 50-64
- ☐ 65 and older

32. What is your gender?

- ☐ Male
- ☐ Female

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33. Which of the following represents the organization with which you are affiliated?

- ☐ DENTAC
- ☐ VETCOM
- ☐ MEDDAC

34. How would you describe your position on your medical campus?

- ☐ Administration (management, IT, clerical, logistics, etc.)
- ☐ Allied health professional (nurse, technician, paramedic, health inspector, etc.)
- ☐ Service (food service, environmental service, transportation, building services, etc.)
- ☐ Clinician (physician, PA, NP)
- ☐ Other (please specify) _____

35. How long have you been employed at your medical campus?

- ☐ 6 months or less
- ☐ 7 to 12 months
- ☐ 1 to 3 years
- ☐ More than 3 years

36. What is your employment status?

- ☐ Active Duty
- ☐ Civilian
- ☐ Contractor
- ☐ Other (Please specify) _____

37. Have you ever been deployed?

- ☐ Yes
- ☐ No

38. Please provide any additional comments you have regarding your experience with the MTF tobacco-free campus policy and its effectiveness.

Appendix E

Lessons-Learned by Administrators

Overall, the administrators thought implementation of the tobacco-free campus policy went well with minimal opposition. They attributed this to maintaining clear and consistent communication with employees throughout the process, getting initial input from employees on the policy, and having a good working relationship with the Union. They also thought that it was important to offer tobacco-cessation resources, communicate the policy's stipulations with contract organizations, remove the gazebos that were associated with smoking areas, and keep enforcement of the policy and smoking breaks to a minimum.

Administrators mostly said that there were virtually no obstacles to implementing the TFC except for a few issues with contract personnel and frequent turnover in the military requiring a need for continuous education about the policy. There was also some concern that there wasn't a written agreement with the Union regarding this policy.

Issues with Contract Personnel.

- Contracts need to be modified to include tobacco-free campus.
- Contractors cannot attend smoking cessation on paid time.
- Government is liable for tobacco users using cessation services.

Actions or Conditions that Facilitated FS/HAAF's TFC Policy Implementation	Administrators' Additional Suggestions to Overcome Obstacles
Communicated policy early	Hire a third-party negotiator if the union and the MTF do not have a good relationship
Involved stakeholders in planning, implementation and decision-making process	Create a DOD-wide policy to implement TFCs from top to bottom
Obtained buy-in from union president and union endorsement	Provide a toolkit to directorates for going tobacco free
Union president is a healthcare professional and MEDDAC employee	
Positive working relationship between MTF and union	
Enforcement without punitive consequences	
MTF Commander addressed employees' concerns	
Provided tools for smoking cessation	
Kept enforcement efforts of break times the same	
Surveillance efforts	

Key Quotes from Administrator Focus Groups.

“Communicate it early, let folks prepare, and during the process we had opportunities for smokers and nonsmokers to weigh in and I think that gives them some buy in. If you didn’t weigh in and complain about it when it was being established, then you can’t really come back now and complain about it. So communication, involvement, you know, gets everyone’s perspective.” – Administrator

“You gotta have somebody that can deal with unions at the local level that can articulate problems and the solutions at their level. And you’ll never do it by shoving it their throat. It just will not work.” – Administrator

“I think probably the biggest obstacle is getting the union involved early and get the buy in early and that was achieved from the front very beginning. Our union president was very supportive...He was getting feedback from the employees of what their concerns were and he addressed those concerns as well as the hospital Commander addressed the employees’ concerns. And so just making a policy that was fair and comprehensive as much as possible with the education that went ahead of the policy so people knew what to expect and allowed them to feel like they were part of the decision making. I think that was the critical part.” – Administrator

Appendix F Figures

Figure F-1. Distribution of FS/HAAF Medical Campus Employees by Command and Status, 31 October 2013

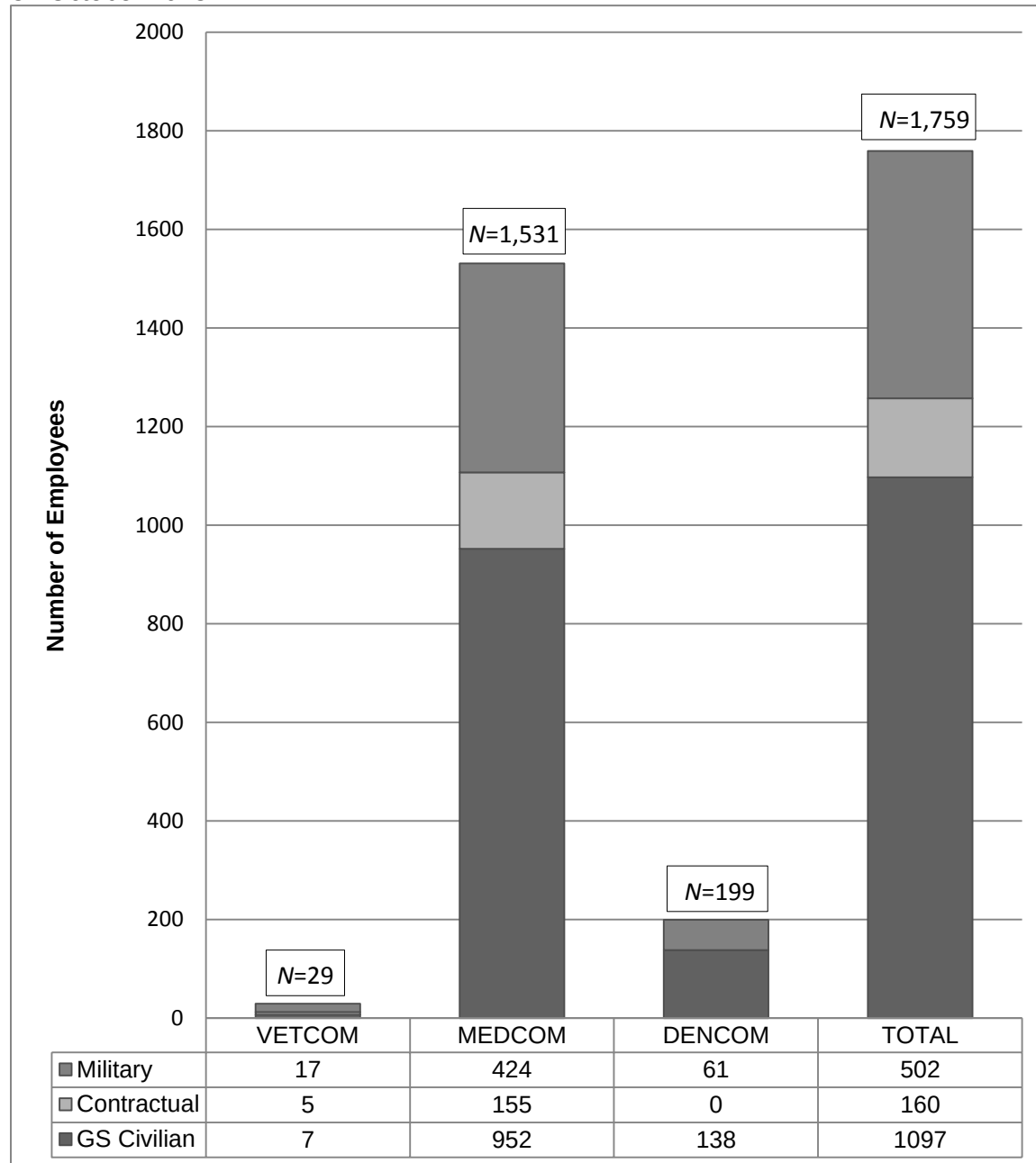
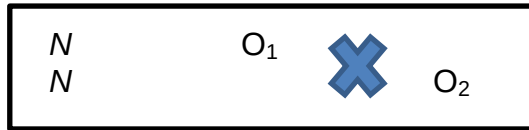


Figure F-2. Quantitative Evaluation Component Design



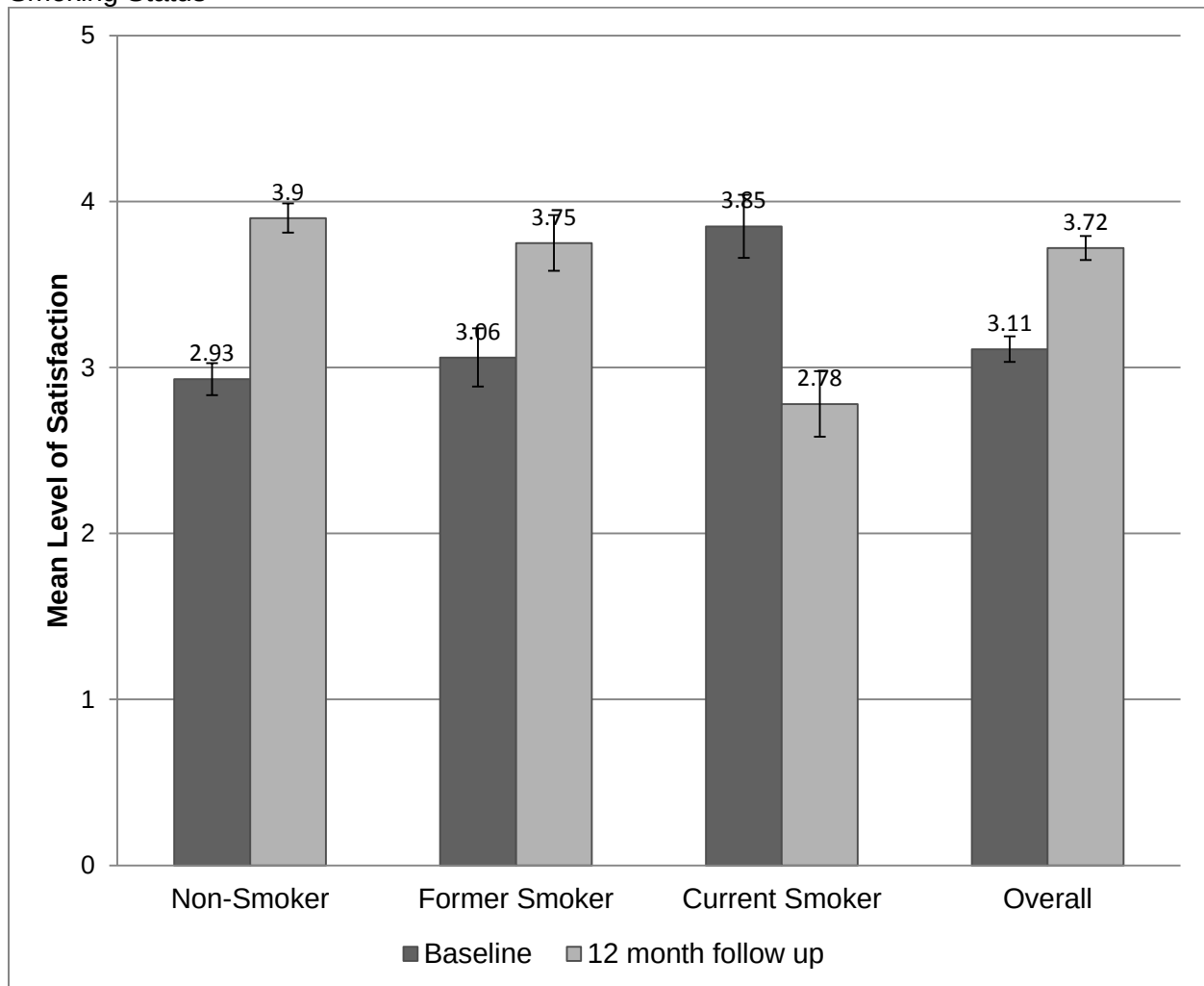
Note: O₁ represents baseline survey sample, X represents policy implementation, O₂ represents follow-up survey sample, and N indicates a non-randomized, non-equivalent sample.

Figure F-3. Qualitative Evaluation Component
Post-test Only Non-experimental Design



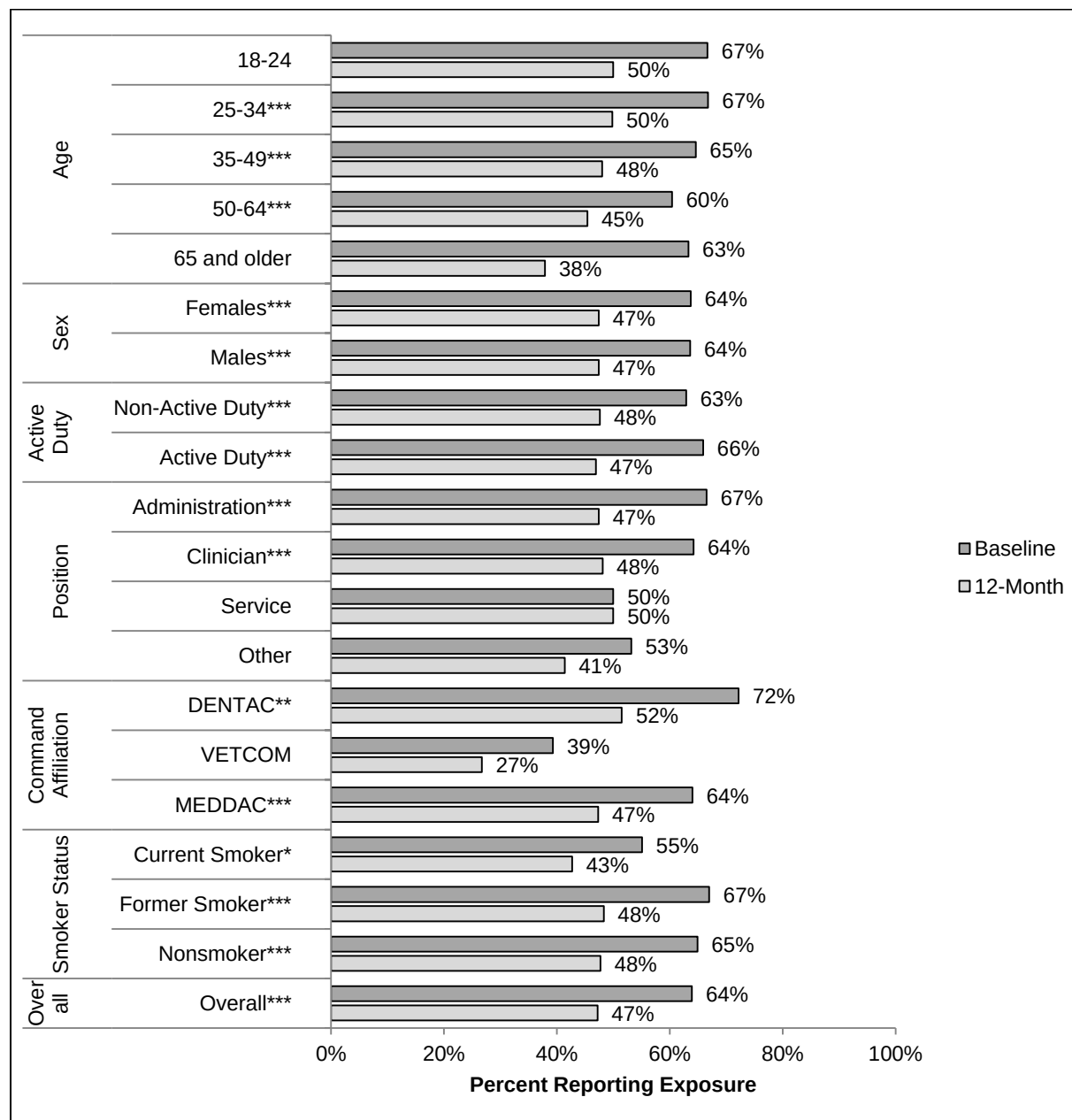
Note: X represents policy implementation, and O represents follow-up focus group sample.

Figure F-4. Mean Level of Current Campus Tobacco Policy Satisfaction by Time and Smoking Status



Note. Error bars represent +/-1 standard error. Overall N_{baseline} = 1,019, Overall N_{12-month} = 1,139

Figure F-5. Percentage of Respondents Reporting Exposure to Secondhand Smoke during the Past 7 Work Days at Baseline and 12-Month Follow-up by Demographic Characteristics

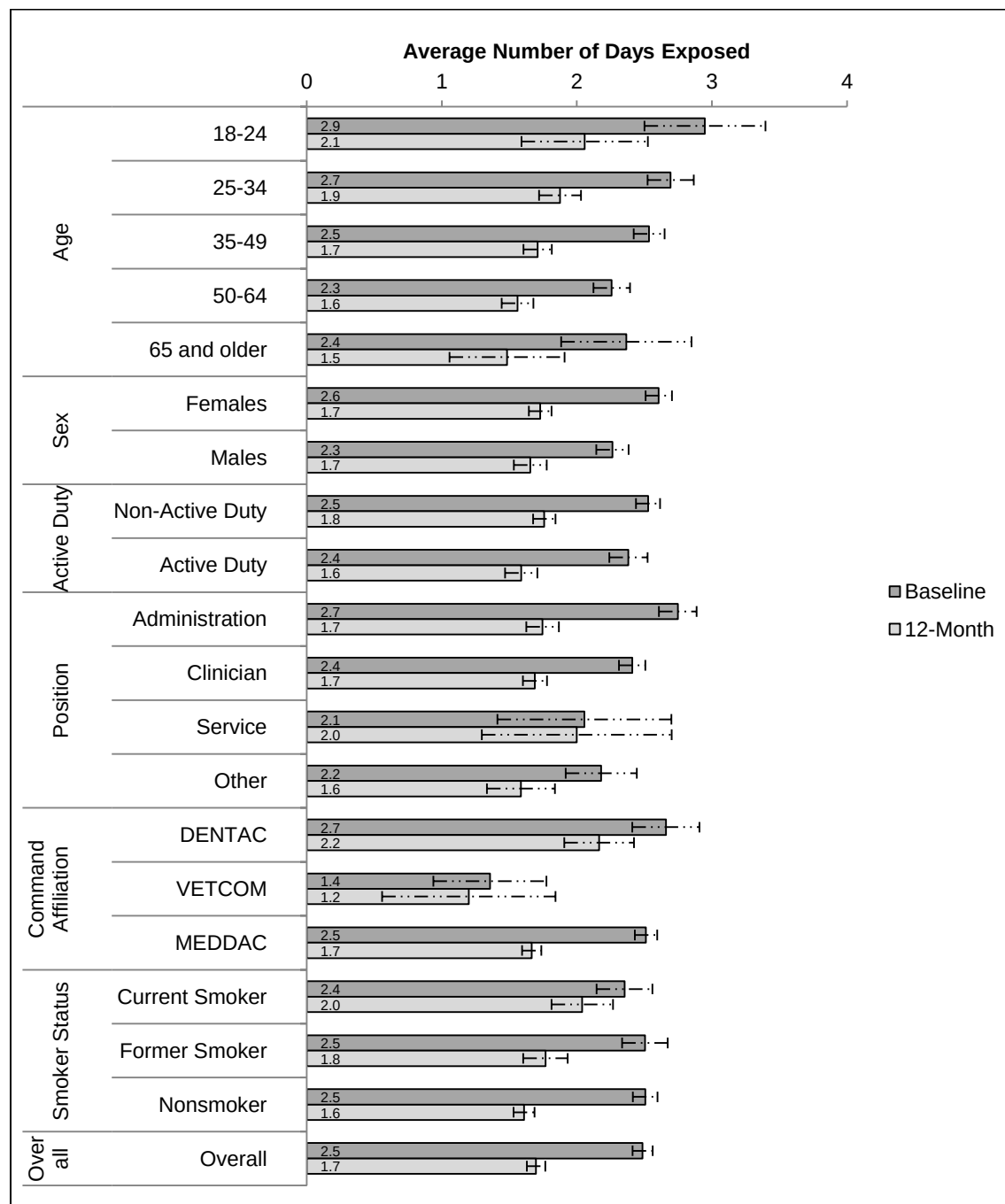


Note. * $p < .05$, ** $p < .01$, *** $p < .001$

DENTAC/VETCOM Command Affiliation excluded due to small sample size.

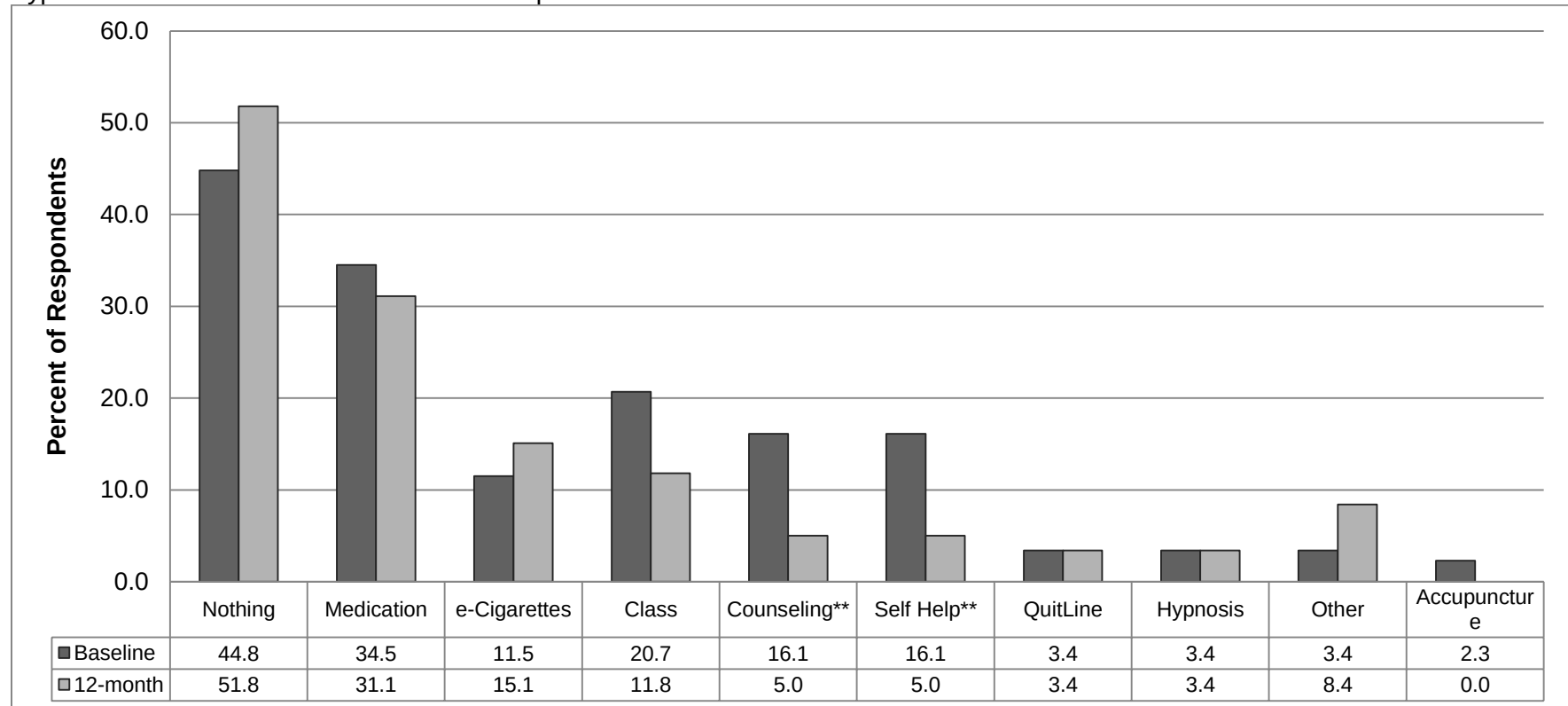
Overall $N_{\text{baseline}} = 1,129$, Overall $N_{\text{12-month}} = 1,131$

Figure F-6. Average Number of Days Exposed to Secondhand Smoke During the Past 7 Work Days at Baseline and 12-Month Follow-up by Demographic Characteristics



Note. Error bars represent ± 1 standard error. DENTAC/VETCOM Command Affiliation excluded due to small sample size. Overall $N_{\text{baseline}} = 1,129$, Overall $N_{\text{12-month}} = 1,131$. Averages include 0 days of exposure data.

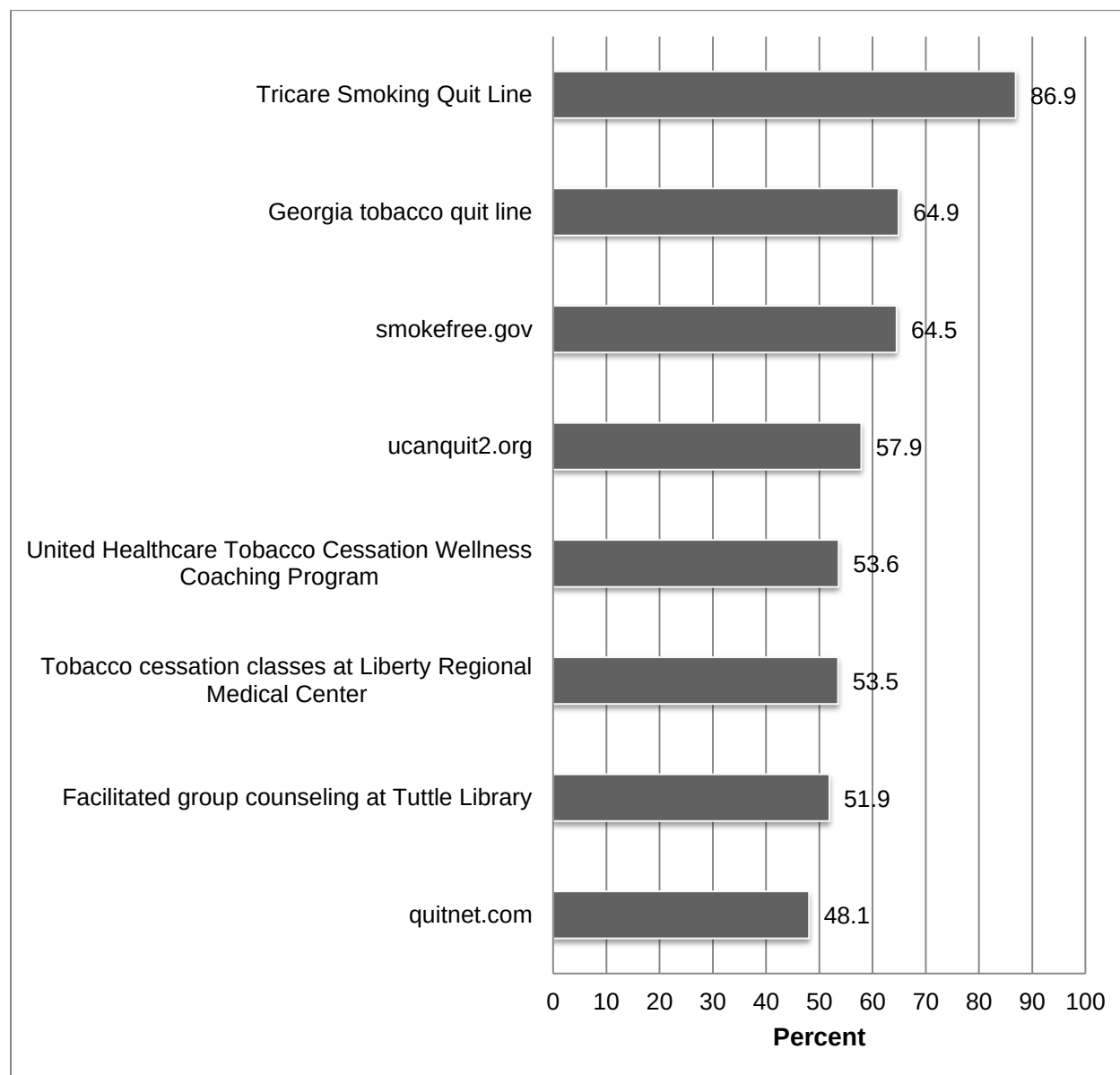
Figure F-7. Percent of Respondents Who Had Quit or Attempted to Quit in the Past 12 Months Indicating Utilization of Various Types of Assistance at Baseline and Follow-up¹



¹ N_{baseline} = 87, N_{follow-up} = 119.

**Proportion of respondents utilizing assistance differed significantly from baseline to 12-month follow-up, $p < .01$.

Figure F-8. Percent of Respondents Indicating which Services are Currently Available through The Winn Army Community Hospital Tobacco-cessation Program, 12-Month Follow-up Only (N=1,153)



Note: Percentages will sum to more than 100% because respondents were allowed to select all that apply.

Figure F-9. Distributions of Number of People Seen Violating the TFC Policy, as Reported by 12-Month Survey Respondents (N=1,151)

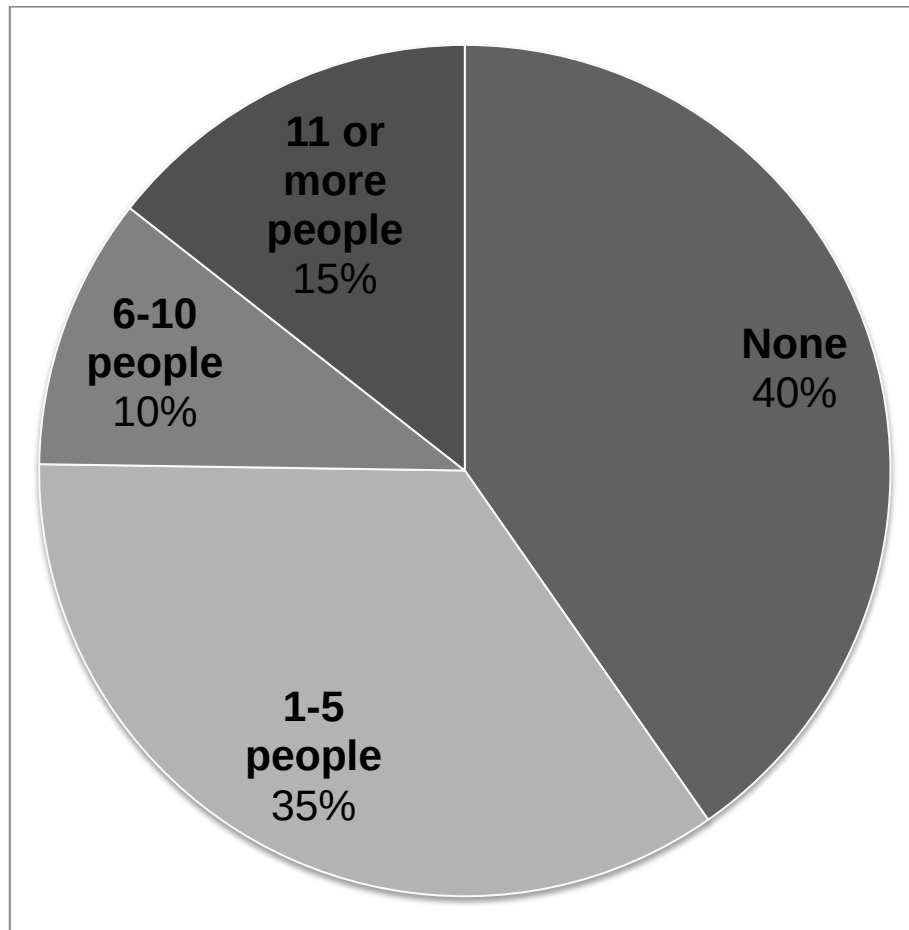
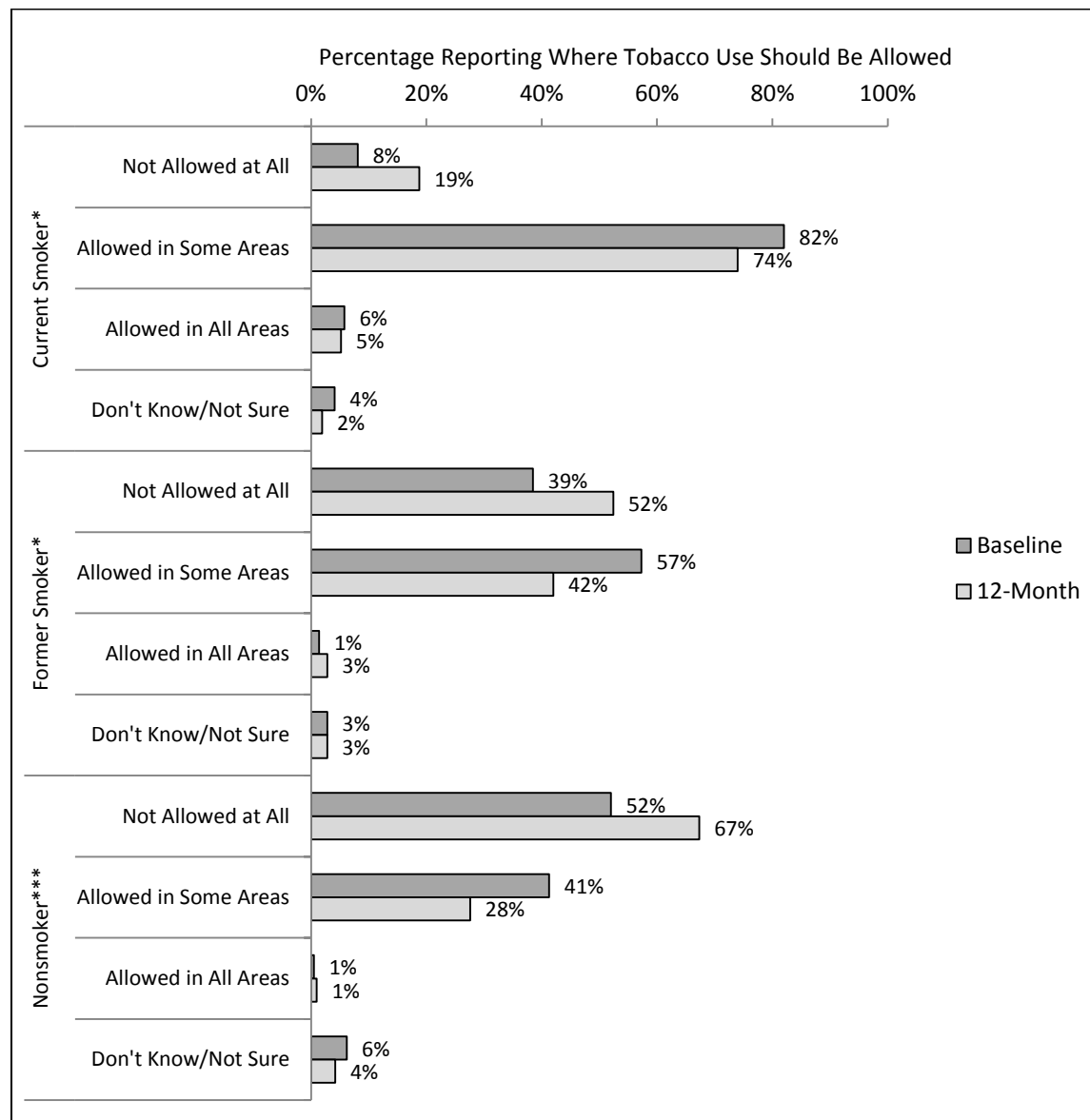


Figure F-10. Percentage of Respondents Reporting Where Tobacco Use Should Be Allowed at Baseline and 12-Month Follow-up, by Smoker Status



Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Appendix G

Tables

Table G-1. Constructs Measured in Baseline and Follow-up Electronic Surveys in TFC Evaluation at FS/HAAF Medical Campuses

Survey area	Measures included on survey tools
Demographics	• Age • Gender • Position (administrative, clinical, service, other) • Military Status (active duty, civilian, contractor) • Command affiliation (MEDDAC, DENTAC, VETCOM) • Deployment History
Policy knowledge	• Level of familiarity with current campus smoking boundaries
Policy satisfaction	• Level of satisfaction with existing policy
Secondhand smoke knowledge, attitudes, and exposure	• Knowledge of health effects of secondhand smoke • Level of perceived harm of secondhand smoke • Level of agreement that non-smokers should be able to breathe air that is free of tobacco smoke • Ever bothered by secondhand smoke in the workplace • Number of days exposed to secondhand smoke during past 7 work days • Number of hours exposed to secondhand smoke during past 7 work days
Tobacco use habits	• Smoking status (every day, some days, not at all) • Average number of cigarettes smoked per day at work (smokers only) • Average number of cigarettes smoked per day not at work (smokers only) • Smokeless tobacco use status (every day, some days, not at all) • Policy impacts on tobacco use (use less tobacco at work, use less tobacco at home, switched from using cigarettes to smokeless tobacco, no change, use more tobacco at work, use more tobacco at home)*
Motivation to quit and utilization of cessation activities (tobacco users only)	• Current desire to quit using tobacco products • Planning to quit in next 30 days or next 6 months • Any cessation attempt in last 12 months for 1 day or longer • Utilization of various types of cessation assistance • Knowledge of health insurance provisions to assist with cessation • Policy impact on quitting and motivation to quit* • Awareness of MEDDAC cessation clinic and accessibility*
Long-term health outcomes	• Ever diagnosed with heart attack, emphysema, stroke, chronic bronchitis, and/or a series of 10 cancers
Policy compliance	• Observed number of individuals violating campus policy*
Attitudes toward tobacco use in the workplace	• Level of agreement that smoking on or next to campus has a negative effect on public image • Level of agreement that smoking affects workplace morale • Level of agreement that excessive breaks to smoke affect productivity
Policy beliefs	• Opinions of appropriate boundaries for where tobacco should be allowed on campus (all areas, some areas, not at all, don't know) • Preference for stronger/weaker tobacco policy compared to existing policy

Note: *Included on 12-month survey only.

Table G-2. Questions Asked Regarding Each Key Evaluation Construct by Type of Focus Group (Administrator, Current Tobacco Users, Non-Tobacco Users, Former Tobacco Users) on TFC Qualitative Evaluation Component Focus Group Guides

Evaluation Constructs	Administrators	Current Tobacco Users	Non-Tobacco Users	Former Tobacco Users
TFC Policy Knowledge & Awareness	N/A	- What do you know about the policy? - How did you learn about the policy? - How could advertising be improved?	- What do you know about the policy? - How did you learn about the policy? - How could advertising be improved?	- What do you know about the policy? - How did you learn about the policy? - How could advertising be improved?
TFC Policy's Effects	What impact has the policy had on employee's smoking habits?	- How has the policy affected you? - How has the policy affected your smoking habits (i.e. location, types of tobacco, frequency of tobacco use?) - Did the policy have any impact on your work life?	How has the policy affected you?	- How has the policy affected you? - How has the policy affected your smoking habits (i.e. location, types of tobacco, frequency of tobacco use?) - Did the policy have any impact on your work life?
TFC Policy Enforcement	- Explain how the policy is enforced in theory and in practice. - What were some factors that aided enforcement? - Do you have any ideas for how to better enforce the policy?	- Have you ever witnessed a violation? - Have you ever witnessed an enforcement attempt and what happened? - Have you ever been approached about violating the policy?	- How is the policy enforced? - Have you ever witnessed a violation? - Have you ever witnessed an enforcement attempt and what happened?	- Have you ever witnessed a violation? - Have you ever witnessed an enforcement attempt and what happened? - Have you ever been approached about violating the policy?
Quitting	What recommendations do you have for motivating others to quit?	- Have you thought about quitting in the past 12 months? - Have you tried quitting? - What motivated you to try to quit? - Did the policy play any role in quitting or an attempt to quit? - Did you utilize any tobacco-cessation services? - What recommendations do you have for motivating others to quit?	- In your personal experience, what factors prevent smokers from quitting? - What factors influence smokers' desire to quit? - What recommendations do you have for motivating others to quit?	- Did the policy have any impact on your decision to quit? - What helped you quit? What didn't work for you? - What recommendations do you have for motivating others to quit? - What advice would you have for policymakers to help smokers that want to quit?
Tobacco- free Installation	What do you think about making an entire installation tobacco free?	What do you think about making an entire installation tobacco free?	What do you think about making an entire installation tobacco free?	What do you think about making an entire installation tobacco free?

- Administrators Only**

- Describe your role in researching or drafting the policy.
- What obstacles did you need to overcome?
- What factors facilitated the process?
- What lessons have you learned?
- How do you think leaders in the Army should address the continued high rates of tobacco use in the Army as compared to other Services and Civilian rates?

Table G-3. Description of Data Collection Types, Audience, and Number of Participants for TFC Qualitative Component

Data Collection Source	Number of participants	Tobacco User Status	Type of Group	Employee Status of Group
1	10	Administrator	Focus group	MEDDAC Employees
2	5	Current tobacco user	Focus group	Mixed
3	2	Current tobacco user	Focus group	MEDDAC Employees
4	2	Current tobacco user	Focus group	Patients
5	4	Current tobacco user	Informal discussion	Patients
6	3	Non-tobacco user	Focus group	MEDDAC Employees
7	4	Non-tobacco user	Informal discussion	Patients
8	3	Non-tobacco user	Informal discussion	Patients
9	5	Non-tobacco user	Focus group	MEDDAC Employees
10	1	Administrator	Structured interview	MEDDAC Employees
11	1	Current tobacco user	Structured interview	MEDDAC Employees
12	1	Current tobacco user	Structured interview	Patients
13	4	Current tobacco user	Focus group	Patients
14	1	Current tobacco user	Structured interview	MEDDAC Employee
15	1	Former Tobacco User	Structured interview	MEDDAC Employees
16	1	Former Tobacco User	Structured interview	MEDDAC Employees
17	1	Non-tobacco user	Structured interview	MEDDAC Employee
18	9	Non-tobacco user	Focus group	MEDDAC Employees
19	3	Non-tobacco user	Focus group	MEDDAC Employees
20	1	Former Tobacco User	Structured interview	MEDDAC Employee
21	1	Administrator	Structured interview	MEDDAC/DENTAC/VETCOM
22	1	Non-tobacco user	Structured interview	Unknown
23	1	Current tobacco user	Structured interview	Unknown

Table G-4. Respondent Demographic Characteristics at Baseline and 12-Month Follow-up Survey

	Baseline (N = 1,210 ^a)	12-Month (N = 1,147)	
	n (%)	n (%)	X ²
Age			NS
18-24	39 (3.4)	34 (3.0)	
25-34	234 (20.5)	249 (21.7)	
35-49	494 (43.3)	482 (42.0)	
50-64	343 (30.1)	351 (30.6)	
65 and older	31 (2.7)	31 (2.7)	
Sex			NS
Male	403 (35.3)	372 (32.4)	
Female	740 (64.7)	775 (67.6)	
Active Duty			**
Yes	305 (26.8)	363 (31.6)	
No	834 (73.2)	784 (68.4)	
Employment Status ^b			N/A
Active Duty		363 (31.6)	
Civilian		757 (66.0)	
Contractor		22 (1.9)	
Other		5 (0.4)	
Position			NS
Administration	366 (32.2)	374 (32.6)	
Clinician ^c	653 (57.4)	668 (58.2)	
Service ^d	19 (1.7)	14 (1.2)	
Other	99 (8.7)	91 (7.9)	
Command Affiliation			NS
DENTAC	100 (9.0)	104 (9.1)	
VETCOM	28 (2.5)	17 (1.5)	
MEDDAC	980 (88.2)	1026 (89.5)	
DENTAC/VETCOM	3 (0.3)	0 (0.0)	
Smoker Status			NS
Current Smoker	172 (14.9)	154 (13.3)	
Former Smoker	218 (18.9)	212 (18.3)	
Nonsmoker	764 (66.2)	794 (68.4)	

Notes: NS=not significant

***p* < 0.01^a valid baseline N for Age = 1141, for Sex = 1143, for Active Duty = 1139

for Position = 1137, for Command Affiliation = 1111, Smoker Status = 1154

^b this information was not collected at baseline as baseline questionnaire asked only about Active Duty status (yes/no)^c including allied health professional and clinician^d including food service and environmental service

Table G-5. Focus Group Demographic Characteristics
(N=65)

	n (%)
Age	
18-24	4 (6.2)
25-34	17 (26.2)
35-49	26 (40.0)
50-64	17 (26.2)
65 and older	1 (1.5)
Sex	
Male	41 (63.1)
Female	24 (36.9)
Position^a	
Administration	25 (41.0)
Allied Health Professional	18 (29.5)
Service	1 (1.6)
Other	17 (26.2)
Command Affiliation^a	
MEDDAC	53 (86.9)
MEDDAC, DENTAC, and VETCOM	1 (1.6)
N/A	7 (11.5)
Time Employed^b	
Less than 6 months	3 (5.5)
7-12 months	10 (18.2)
1-3 years	15 (27.3)
More than 3 years	27 (49.1)
Employment Status	
Active Duty	37 (56.9)
Civilian	27 (41.5)
Contractor	1 (1.5)
Deployed	
Yes	41 (63.1)
No	24 (36.9)
Group Stratification	
Tobacco User	21 (32.3)
Non-Tobacco User	29 (44.6)
Former Tobacco User	3 (4.6)
Administrator	12 (18.5)
Data Collection Type	
Focus Group	41 (63.1)
Interview	11 (16.9)
Informal Discussion	13 (20.0)
Notes:	
^a N = 61	
^b N = 55	

Table G-6. Respondent Agreement with Statements Concerning Morale, Productivity, and Break Times before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,190 ^a)	12-Month (N = 1,194)		
	n (%)	n (%)	X ²	p
Smoking on or next to campus has a negative effect on public image ^b			3.79	0.150
Agree/Strongly agree	790 (66.4)	836 (70.0)		
Neither agree nor disagree	175 (14.7)	162 (13.6)		
Disagree/Strongly disagree	225 (18.9)	196 (16.4)		
Smoking affects workplace morale negatively			14.98	0.001***
Agree/Strongly agree	605 (51.0)	687 (57.5)		
Neither agree nor disagree	281 (23.7)	278 (23.3)		
Disagree/Strongly disagree	301 (25.4)	229 (19.2)		
Excessive breaks to smoke affect productivity			9.022	0.011*
Agree/Strongly agree	919 (77.7)	986 (82.6)		
Neither agree nor disagree	126 (10.7)	105 (8.8)		
Disagree/Strongly disagree	137 (11.6)	103 (8.6)		

Notes.

* $p < 0.05$, *** $p < 0.001$ ^a Baseline N for Smoking on or next to campus = 1190, for Smoking affects workplace = 1187, for Excessive breaks = 1182^b Responses of “strongly agree” and “agree” collapsed into one category and “strongly disagree” and “disagree” collapsed into one category for comparison.

Table G-7. Level of Familiarity with Areas of the Campus Where Employees Can and Cannot Smoke, as Reported by Employees before and 12 Months after the Implementation of A 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,164)	12-Month (N = 1,163)		
	n (%)	n (%)	X ²	p
Not at all familiar	143 (12.3)	113 (9.7)	101.5	<0.001***
Slightly unfamiliar	118 (10.1)	83 (7.1)		
Neither familiar nor unfamiliar	155 (13.3)	89 (7.1)		
Slightly familiar	413 (35.5)	311 (26.7)		
Very familiar	335 (28.8)	567 (48.8)		
Note: *** <i>p</i> < 0.001.				

Table G-8. Level of Satisfaction with the Existing Tobacco Policy, as Reported by Employees before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,019)	12-Month (N = 1,139)		
	n (%)	n (%)	χ^2	p
Very dissatisfied	140 (13.7)	139 (12.2)	213.3	<0.001***
Slightly dissatisfied	147 (14.4)	112 (9.8)		
Neither dissatisfied nor satisfied	389 (38.2)	211 (18.5)		
Slightly satisfied	152 (14.9)	144 (12.6)		
Very satisfied	191 (18.7)	533 (46.8)		

Note:

*** $p < 0.001$. Respondents who indicated that they were unfamiliar with the existing tobacco-free policy were excluded from this analysis.

Table G-9. Knowledge of the Health Effects of Secondhand Smoke: Agreement with Statements that Secondhand Smoke Could Cause Specific Health Problems, as Reported by Employees before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,194 ^a)	12-Month (N = 1,194)		
	n (%)	n (%)	χ^2	p
Lung cancer in adults	1081 (90.5)	1080 (90.5)	1.02	0.602
Respiratory problems in children	1136 (95.3)	1136 (95.1)	0.146	0.930
Ear infections in children	792 (66.7)	848 (71.0)	7.42	0.024*
Heart disease in adults	971 (81.8)	971 (81.3)	0.997	0.607
Sickle cell anemia	333 (28.2)	336 (28.1)	0.187	0.911
Vision problems	624 (52.9)	639 (53.5)	0.449	0.799
Sudden Infant Death Syndrome	687 (58.0)	713 (59.7)	9.80	0.007**
Colon cancer in adults	618 (52.3)	610 (51.1)	0.516	0.773
Skin irritation	851 (72.1)	909 (76.1)	8.52	0.014*
Health problems among pregnant women and fetuses ^b		1116 (93.5)	--	

Notes: * $p < 0.05$, ** $p < 0.01$

^a Baseline N for Lung cancer in adults = 1194, for Respiratory problems = 1192, for Ear infection = 1187, for Heart disease = 1187, for Sickle cell = 1182, for Vision problems = 1179, for SIDS = 1184, for Colon cancer = 1182, for Skin irritation = 1181.

^d Baseline data not collected for health problems among pregnant women and fetuses.

Table G-10. Employees' Attitudes regarding Perceived Harm of Secondhand Smoke before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,180 ^a)	12-Month (N = 1,194)		
	n (%)	n (%)	χ^2	p
Harmfulness of secondhand smoke			3.22	0.359
Not at all harmful	24 (2.0)	19 (1.6)		
A little harmful	100 (8.5)	81 (6.8)		
Somewhat harmful	254 (21.5)	268 (22.4)		
Very harmful	802 (68.0)	826 (69.2)		
Exposure to tobacco smoke is very dangerous ^b			1.98	0.371
Agree/Strongly agree	937 (79.2)	969 (81.2)		
Neither agree nor disagree	126 (10.7)	123 (10.3)		
Disagree/Strongly disagree	120 (10.1)	102 (8.5)		
Non smokers should breathe air that is free of tobacco smoke ^b			4.47	0.107
Agree/Strongly agree	985 (83.2)	1014 (84.9)		
Neither agree nor disagree	107 (9.0)	113 (9.5)		
Disagree/Strongly disagree	92 (7.8)	67 (5.6)		

Notes:

^a Baseline N for Perceived harm = 1180, for Exposure to tobacco smoke = 1183, for Non smokers should breathe air = 1184.^b Responses of "strongly agree" and "agree" collapsed into one category and "strongly disagree" and "disagree" collapsed into one category for comparison.

Table G-11. Qualitative Quotes Regarding the Tobacco-free Medical Campus Policy's Effects on Employees, by Type of Effect

SHS Knowledge, Attitudes and Exposure	<i>"Being a nonsmoker, I don't enjoy being around smoke. So, I mean it's nice to be in a place that you can walk into where there is nobody smoking."</i> - Non-Tobacco User
Tobacco Use Habits	Effect on Total Daily Consumption <i>"I don't smoke that much either anymore now I have to walk across the street."</i> - Current Tobacco User <i>"It made me chain smoke. When I actually go across the street I do a couple while I'm out there because I know that going back in I probably won't have time to come back and come back, whatever. So it just makes me chain smoke."</i> - Current Tobacco User <i>"I have reduced my smoking a lot while performing my duties. But I make up for it as soon as the sun goes down."</i> – Current Tobacco User Effect on Location of Tobacco Use <i>"But it is really inconvenient to walk across the street and that's the key to the policy. It's inconvenient."</i> - Administrator <i>"It surely hasn't stopped me from smoking. I will get in my vehicle and leave out of the parking lot and go over in the National Guard area because I know that that is not the hospital area. And I will sit my vehicle, comfortably, and I will smoke my cigarette."</i> - Current Tobacco User Effect on Pattern of Tobacco Use <i>"It's a little bit more inconvenient if I'm at the hospital to go smoke. But other than that, it's actually been pretty good because it slows my smoking down when I am over there."</i> – Current Tobacco User Effect on Types of Tobacco <i>"It hasn't changed the brand that I smoke, it hasn't changed the frequency or anything like that, that I smoke."</i> – Current Tobacco User Effect on Smokeless Tobacco Users <i>"I won't go into a big staff meeting with a big ole chew in my mouth but if I'm sitting at my desk working not bothering anybody, not counseling Soldiers, then, hey, that's on me."</i>- Current Tobacco User
Motivation to Quit	Overall, participants did not believe the policy had an effect on their motivation to quit but several attitudes about motivation to quit in regards to personal will, health concerns and graphic ads were elicited. Personal Will: " <i>"You're not going to motivate anybody to quit. You know, it's going to be a personal choice...If that person's not ready to quit smoking, they're not going to quit. Now, if they're ready to quit and they know themselves they want to quit, they'll quit."</i> – Current Tobacco User Health Concerns: <i>"Sometimes I think they do, when, together with the health issues that they see or they hear about other person with lung cancers and then they say ooh, okay, let me quit. I know someone who did it like that."</i> – Non-Tobacco User <i>"I was exercising a lot more and I got tired of not being able to breathe."</i> – Former Tobacco User Graphic Ads: <i>"I saw a commercial on TV about a lady and...she could not breathe and she had the trache...and she was trying to talk through the trache and telling people... 'I smoked for years...don't be me, I can't sing to my grandchildren...' I think something along that line is what people need to see. They need the reality...to see someone who's actually experiencing it, I think is the most powerful tool."</i> – Administrator

	<i>"I mean I understand the point they are putting out that smoking is bad for your health, but every time you pick up a pack of cigarettes you're going to see that. Kind of like people aren't idiots they know if you're smoking cigarettes it's not good for you." – Former Tobacco User</i> Family: <i>"The biggest thing that actually would motivate me a little bit is, I do have a newborn. She is actually a month old right now... So, I would say I've slowed down because of that. When it was coming time for, you know, birth and all that stuff, I got it back in my head. I was like, okay, I need to quit now."- Current Tobacco User</i> <i>"My daughter ... used to smoke like a pack a day when she got pregnant, then she...had my grandson, she slowed down, then she finally stopped... when he was born... because she has an aunt, her cousin got asthma because of smoking so she didn't want that for her son, so she just quit." – Non-Tobacco User</i>
Utilization of Cessation Services	Qualitative data sought to determine why participants utilized or did not utilize cessation services, rather than whether or not the policy was effective in increasing utilization of cessation services. <i>"The way to improve it is to provide an easier way to quit smoking. We have some options for smoking cessation here but I'm not convinced that it's easy to do. You know you gotta go see a doctor and you gotta do certain things and people just don't have time." – Current Tobacco User</i>
Long-term Health Outcomes	<i>"One of the things I thought was very positive that, if they were going to smoke, they were going to get more exercise by having to walk. You know, so they're getting more exercise than they were prior to the implementation of the smoking policy so I thought that was positive." – Administrator</i>
Other Effects	Effect on Break Times <i>"That is one thing that maybe affects us because they are taking like five minutes before; they are taking longer time...and we have to cover what they're supposed to be doing...because they take longer." – Non-Tobacco User</i> Safety Effects <i>"...if you choose to walk across the street, it's a safety hazard because there are numerous times I've nearly gotten hit because people aren't paying attention. Or I've seen other people get hit because people aren't paying attention." – Current Tobacco User</i> <i>"I mean you got the guy that walk around cutting the grass, you got gasoline. A military base is very hazardous. So when somebody in a designated smoking area they already looked at those hazards. They assure that those hazards are not there so they can light up and they are far enough from the building, etc. etc. etc. But now when you try to sneak and have one it's altogether different. It looks safe to you but it don't mean that it's safe." – Current Tobacco User</i> <i>"They have to walk in the South Georgia heat and stand out in the middle of the field to smoke." – Administrator</i> <i>"I've been soaked a few times."- Current Tobacco User</i> Effect on Cigarette Butts <i>"I can say one thing, the outside is much more cleaner here. You don't really have to worry about cigarette butts being or somebody's like dip being on the ground and stuff like that."- Current Tobacco User</i> <i>"I'm a Soldier and I do clean up around the buildings and every Friday or Thursday or whatever a cadre decides we got to get a bag and pick up cigarettes around this campus. Sometimes it's a lot of cigarettes to pick up. In the parking lot, the grass, the lawn, just everywhere. ...it's hard for me to bend down because I got a neurologic problem in my leg and bending down to pick them up has been a problem."- Non-Tobacco User</i> <i>"You'll probably see one big cigarette butt ring around the whole hospital."- Current Tobacco User</i> Effect on Visibility of Smokers <i>"It kind of increased the visibility of smoking cause you can't drive by Winn Army Community Hospital without a seeing a ring of people smoking outside whereas before they were tucked away."- Former Tobacco User</i>

Table G-12. Employees' Self-Reported Exposure to Secondhand Smoke before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,197 ^a)	12-Month (N = 1,194 ^b)		
	n (%)	n (%)	χ^2	p
Bothered by smoke in the workplace	594 (49.6)	523 (43.8)	8.14	0.004**
Bothered in what ways ^c				
I have physical reactions	286 (49.0)	272 (52.3)	1.22	0.269
I have sensitivity to the smell of smoke on others	471 (80.7)	424 (81.5)	0.14	0.758
I have medical/health complications negatively affected by SHS	173 (29.6)	151 (29.0)	0.05	.843
I feel the need to get away from my work area for a breath of fresh air	277 (47.4)	276 (53.1)	3.51	0.061
I have difficulty sleeping at night due to smoke-related symptoms	78 (13.4)	79 (15.2)	0.76	0.383
I have difficulty concentrating on my work because I am annoyed by the presence of SHS	170 (29.1)	209 (40.2)	15.0	<0.001***
I feel that my productivity at work is negatively affected by the presence of SHS	167 (28.6)	187 (36.0)	6.85	0.009**
I feel uncomfortable asking people who smoke not to smoke around me	227 (38.9)	202 (38.8)	0.00	0.994
I sense tensions between smokers and Nonsmokers	247 (42.3)	220 (42.3)	0.00	0.996
Other	19 (3.3)	44 (8.5)	13.9	<0.001***
Exposed to secondhand smoke in the past 7 work days ^d	721 (63.9)	534 (47.2)	63.4	<0.001***
Number of days exposed to secondhand smoke in the past 7 work days			70.9	<0.001***
None	408 (36.1)	597 (52.8)		
1 day	116 (10.3)	106 (9.4)		
2 days	124 (11.0)	95 (8.4)		
3 days	101 (8.9)	88 (7.8)		
4 days	78 (6.9)	57 (5.0)		
5 days	136 (12.0)	87 (7.7)		
6 days	13 (1.2)	10 (0.9)		
7 days	153 (13.6)	91 (8.0)		
Days exposed, Mean±SD ^e	3.89±2.11	3.60±2.07	t=2.51, df=1253	0.012*
Number of hours per day exposed to secondhand smoke ^e			3.47	0.325
Less than an hour	117 (16.9)	88 (16.5)		
1-4 hours	452 (65.3)	346 (65.0)		
5-8 hours	83 (12.0)	77 (14.5)		
9 or more hours	40 (5.8)	21 (3.9)		
Hours exposed, Mean ± SD ^e	2.44 ± 2.97	2.56 ± 3.05	t=-0.722, df=1214	0.471

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ ^a Baseline N for Bothered by smoke = 1197, for Exposure to secondhand smoke = 1129, for Number of days exposed = 1129, for Number of hours exposed = 692

(continued)

Notes continued:

^b 12-month N for Bother by smoke = 1194, for Exposure to secondhand smoke = 1131, for Number of days exposed = 1131, for Number of hours exposed = 532.^c Exposed only, Baseline N = 584, 12-month N = 520^d Only those who were at work in the past 7 days are included.^e Only exposed data included.**Table G-13.** Multiple Logistic Regression: Exposure (Yes/No) to Secondhand Smoke During the Past 7 Work Days Regressed On Demographic Characteristics and Time of Data Collection

Predictor	Estimate	SE	df	p	OR	95% CI
Constant	.04	.28	1	.89	1.04	
Age						
25-34	.03	.27	1	.93	1.03	[.60, 1.75]
35-49	-.10	.27	1	.71	.91	[.53, 1.54]
50-64	-.28	.28	1	.32	.76	[.44, 1.31]
65 and older	-.24	.39	1	.54	.78	[.36, 1.69]
Sex						
Male	.03	.10	1	.78	1.03	[.84, 1.25]
Duty Status						
Active Duty	-.01	.12	1	.93	.99	[.78, 1.25]
Position						
Administration	.05	.10	1	.61	1.05	[.87, 1.28]
Service	-.12	.43	1	.78	.89	[.38, 2.07]
Other	-.30	.17	1	.08	.74	[.53, 1.04]
Command Affiliation						
DENTAC	.29	.16	1	.06	1.34	[.98, 1.82]
Smoker Status						
Current Smoker	-.35	.13	1	.01**	.70	[.54, .91]
Former Smoker	.08	.12	1	.48	1.09	[.86, 1.37]
Time of Data Collection						
Baseline	.72	.09	1	.001***	2.06	[1.73, 2.46]

Notes:

** $p < .01$, *** $p < .001$

Reference category for Age is 18-24, for Sex is Female, for Duty Status is Non-Active Duty, for Position is Clinician, for Command Affiliation is MEDDAC (VETCOM and DENTAC/VETCOM Command Affiliations excluded due to small sample size), for Smoker Status is Nonsmoker, and for Time of Data Collection is 12-Month Follow-up.

Overall $X^2(13) = 86.14$, $p < .001$, pseudo- $R^2 = 0.04$

Table G-14. Tobacco-use Prevalence among Medical Campus Employees before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,152 ^a)	12-Month (N = 1,159 ^b)		
	n (%)	n (%)	χ^2	p
Smokeless tobacco use			0.103	0.950
Every day	22 (1.9)	24 (2.1)		
Some days	24 (2.1)	23 (2.0)		
Not at all	1106 (96.0)	1112 (95.9)		
Cigarette use			1.985	0.371
Every day	105 (9.1)	101 (8.7)		
Some days	67 (5.8)	53 (4.6)		
Not at all	982 (85.1)	1006 (86.7)		

Notes:

^a Baseline N for Smokeless tobacco = 1152, for Cigarette use = 1154^b 12-month N for Smokeless tobacco = 1159, for Cigarette use = 1160**Table G-15.** Policy Impact on Tobacco-use Habits, as Reported by Current Users and Users Who Quit in the Past 12 Months, Follow-up Survey Only (N=211)

	n (%)
No change	110 (52.1)
Use less tobacco at work	48 (22.7)
Use more tobacco at home	19 (9.0)
More motivated to quit	17 (8.1)
Use more tobacco at work	12 (5.7)
Less motivated to quit	12 (5.7)
Use less tobacco at home	11 (5.2)
Quit using tobacco	8 (3.8)
Switched from cigarettes to smokeless tobacco	7 (3.3)

Notes: Percentages add to more than 100% because respondents were allowed to select more than one option (with the exception of “no change”)

Table G-16. Tobacco Users' Habits When at Work and Not at Work as Reported by Employees before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 157 ^a)	12-Month (N = 153 ^b)		
	n (%)	n (%)	χ^2	p
Number of cigarettes per workday			1.59	0.451
5 or less cigarettes	113 (71.5)	118 (77.1)		
6-10 cigarettes	37 (23.4)	27 (17.6)		
11 or more cigarettes	8 (5.1)	8 (5.2)		
Number of cigarettes per day when not at work			1.60	0.449
5 or less cigarettes	64 (40.8)	69 (45.1)		
6-10 cigarettes	60 (38.2)	48 (31.4)		
11 or more cigarettes	33 (21.0)	36 (23.5)		

Note:

^a Baseline N for Number of cigarettes per day when not at work = 157, for Number of cigarettes per workday = 158

Table G-17. Multiple Linear Regression: Number of Cigarettes Smoked at Work On an Average Work Day Regressed on Demographic Characteristics and Time of Data Collection

Predictor	B	<i>B</i>	<i>SE</i>	<i>df</i>	<i>t</i>	<i>p</i>	95% <i>CI of B</i>
Constant	4.35		1.59	1	2.75	.006**	[1.23, 7.48]
Age							
25-34	-.67	-.05	1.50	1	-.44	.66	[-3.62, 2.29]
35-49	-.55	-.05	1.51	1	-.36	.72	[-3.52, 2.42]
50-64	-1.31	-.10	1.65	1	-.79	.43	[-4.57, 1.94]
Sex							
Male	2.12	.18	.74	1	2.88	.004**	[.67, 3.57]
Duty Status							
Active Duty	-1.45	-.12	.83	1	-1.74	.08	[-3.09, .19]
Position							
Administration	.07	.01	.71	1	.10	.92	[-1.33, 1.48]
Service	-1.54	-.05	1.77	1	-.87	.39	[-5.03, 1.96]
Other	3.37	.18	1.18	1	2.86	.01**	[1.05, 5.69]
Command Affiliation							
DENTAC	-2.24	-.12	1.04	1	-2.16	.03*	[-4.28, -.19]
VETCOM	1.26	.02	3.99	1	.32	.75	[-6.60, 9.12]
Time of Data Collection							
Baseline	.98	.09	.65	1	1.50	.13	[-.30, 2.27]

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

Reference category for Age is 18-24 (65 and older age category excluded due to small sample size), for Sex is Female, for Duty Status is Non-Active Duty, for Position is Clinician, for Command Affiliation is MEDDAC (DENTAC/VETCOM Command Affiliation excluded due to small sample size), and for Time of Data Collection is 12-Month Follow-up.

Overall $F(11,288) = 3.04$, $p < .001$, $R^2 = 0.10$, Adjusted $R^2 = .07$, $SE = 5.56$

Table G-18. Motivation to Quit, as Reported by Tobacco-using Employees before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 203 ^a)	12-Month (N = 178 ^b)		
	n (%)	n (%)	χ^2	p
Want to stop using tobacco products			0.365	0.833
Yes	75 (36.9)	63 (35.4)		
No	76 (37.4)	72 (40.4)		
Don't Know/Not sure	52 (25.6)	43 (24.2)		
Planning to quit in the next 30 days			5.797	0.055
Yes	44 (34.6)	24 (22.6)		
No	32 (25.2)	40 (37.7)		
Don't Know/Not sure	51 (40.2)	42 (39.6)		
Contemplating quitting in the next 6 months			1.824	0.402
Yes	64 (50.8)	59 (55.7)		
No	25 (19.8)	14 (13.2)		
Don't Know/Not sure	37 (29.4)	33 (31.1)		
Stopped using tobacco for one day or longer to try to quit			0.006	0.939
Yes	90 (44.6)	80 (44.9)		
No	112 (55.4)	98 (55.1)		

Notes:

^a Baseline N for Want to stop = 203, for Planning to quit = 127, for Contemplating quitting = 126, for Stopped using tobacco = 202^b 12-month N for Want to stop = 178, for Planning to quit = 106, for Contemplating quitting = 106

Table G-19. Knowledge of Insurance Coverage of Cessation Services, as Reported by Medical Campus Employees before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1126)	12-Month (N = 1135)		
	n (%)	n (%)	χ^2	p
Does your health insurance include coverage for treatment to quit smoking or stop using other tobacco products?			71.070	<.001
Yes	350 (31.1)	542 (47.8)		
No	105 (9.3)	56 (4.9)		
Don't Know/Not sure	671 (59.6)	537 (47.3)		

Table G-20. Sick Days Taken Due to Respiratory Illness within the Past 12 Months, as Reported by Medical Campus Employees before and 12 months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 997)	12-Month (N = 1,147)		
	n (%)	n (%)	χ^2	p
Ever taken sick days due to respiratory illness				
No	785 (78.7)	937 (81.7)	2.95	.09
Yes	212 (21.3)	210 (18.3)		

Table G-21. Multiple Logistic Regression: Ever Taken Sick Days Due to Respiratory Illness in the Past 12 Months Regressed on Demographic Characteristics and Time of Data Collection (pre-policy implementation baseline v. 12-month follow-up)

Predictor	Estimate	SE	df	p	OR	95% CI
Constant	-1.68	.46	1	.001***	.19	
Age						
25-34	.60	.45	1	.18	1.83	[.76, 4.43]
35-49	.47	.45	1	.30	1.60	[.66, 3.87]
50-64	.44	.46	1	.34	1.55	[.63, 3.83]
65 and older	.34	.57	1	.55	1.41	[.46, 4.35]
Sex						
Male	-.34	.13	1	.01**	.72	[.55, .93]
Duty Status						
Active Duty	-.55	.16	1	.001***	.58	[.42, .79]
Position						
Administration	.07	.12	1	.56	1.07	[.85, 1.36]
Service	.40	.48	1	.41	1.49	[.58, 3.83]
Other	.08	.21	1	.70	1.09	[.72, 1.64]
Command Affiliation						
DENTAC	-.09	.20	1	.67	.92	[.62, 1.36]
VETCOM	.002	.41	1	1.00	1.00	[.45, 2.25]
Smoker Status						
Current Smoker	-.57	.19	1	.01**	.57	[.39, .82]
Former Smoker	-.08	.15	1	.60	.93	[.70, 1.24]
Time of Data Collection						
Baseline	.16	.11	1	.15	1.17	[.94, 1.46]

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$. Reference category for Age is 18-24, for Sex is Female, for Duty Status is Non-Active Duty, for Position is Clinician, for Command Affiliation is MEDDAC (DENTAC/VETCOM Command Affiliation excluded due to small sample size), for Smoker Status is Nonsmoker, and for Time of Data Collection is 12-Month Follow-up.

Overall $X^2(14) = 49.19$, $p < .001$, pseudo- $R^2 = 0.02$

Table G-22. The Proportion of Medical Campus Employees' Self-reported as Ever Diagnosed with Various Health Outcomes, before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy^a

	Baseline (N = 1120- 1133)	12-Month (N = 1091- 1097) ^b		
	n (%)	n (%)	X ²	p
Heart attack	18 (1.6)	11 (1.0)	1.44	0.230
Emphysema	8 (0.7)	8 (0.7)	0.005	0.943
Stroke	14 (1.3)	12 (1.1)	0.092	0.761
Chronic bronchitis	84 (7.4)	57 (5.3)	4.32	0.038*
Lung cancer	0 (0.0)	0 (0.0)	--	
Lip cancer	0 (0.0)	0 (0.0)	--	
Oral cavity cancer	0 (0.0)	0 (0.0)	--	
Pharynx cancer	0 (0.0)	0 (0.0)	--	
Esophagus cancer	1 (0.1)	1 (0.1)	--	
Larynx cancer	0 (0.0)	0 (0.0)	--	
Pancreatic cancer	0 (0.0)	0 (0.0)	--	
Cervical cancer	23 (2.1)	16 (1.5)	1.03	0.311
Bladder cancer	0 (0.0)	0 (0.0)	--	
Kidney cancer	2 (0.2)	0 (0.0)	--	

Note: ^aChi-square test for independence only conducted on diagnoses for which expected cell counts were 5 or higher.

Table G-23. Multiple Logistic Regression: Ever Been Diagnosed with Chronic Bronchitis Regressed On Demographic Characteristics and Time of Data Collection (pre-policy implementation baseline v. 12-month follow-up)

Predictor	Estimate	SE	df	p	OR	95% CI
Constant	-4.01	.77	1	.001***	.02	
Age						
25-34	.37	.76	1	.63	1.45	[.33, 6.48]
35-49	.82	.75	1	.27	2.27	[.52, 9.85]
50-64	.93	.77	1	.23	2.53	[.56, 11.31]
65 and older	2.05	.84	1	.02*	7.73	[1.49, 40.02]
Sex						
Male	-.34	.21	1	.11	.71	[.47, 1.08]
Duty Status						
Active Duty	.11	.25	1	.67	1.11	[.68, 1.81]
Position						
Administration	.72	.19	1	.001***	2.05	[1.41, 2.98]
Service	-.25	1.05	1	.81	.78	[.10, 6.10]
Other	.21	.36	1	.55	1.24	[.61, 2.48]
Command Affiliation						
DENTAC	.56	.27	1	.04*	1.75	[1.04, 2.94]
VETCOM	.70	.55	1	.21	2.01	[.68, 5.96]
Smoker Status						
Current Smoker	.03	.27	1	.90	1.03	[.61, 1.74]
Former Smoker	-.01	.24	1	.96	.99	[.62, 1.58]
Time of Data Collection						
Baseline	.37	.18	1	.04*	1.45	[1.02, 2.07]

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Reference category for Age is 18-24, for Sex is Female, for Duty Status is Non-Active Duty, for Position is Clinician, for Command Affiliation is MEDDAC (DENTAC/VETCOM Command Affiliation excluded due to small sample size), for Smoker Status is Nonsmoker, and for Time of Data Collection is 12-Month Follow-up.

Overall $X^2(14) = 40.07$, $p < .001$, pseudo- $R^2 = 0.02$.

Table G-24. Respondent Medical Campus Tobacco Policy Preferences, before and 12 Months after the Implementation of a 100% Tobacco-free Medical Campus Policy

	Baseline (N = 1,167 ^a)	12-Month (N = 1,163)		
	n (%)	n (%)	X ²	p
Areas where tobacco use should be allowed			56.4	<0.001***
Not allowed at all	501 (42.9)	675 (58.0)		
Allowed in some areas	589 (50.5)	424 (36.5)		
Allowed in all areas	17 (1.5)	22 (1.9)		
Don't know/Not sure	60 (5.1)	42 (3.6)		
Preference for workplace tobacco policy			234.6	<0.001*
Stronger policy	613 (52.6)	345 (29.7)		
Weaker policy	9 (0.8)	176 (15.1)		
No change	428 (36.7)	518 (44.5)		
Don't know/Not sure	115 (9.9)	124 (10.7)		

Note. ***p < 0.001.

^a Baseline N for Areas = 1167, for Preference for policy = 1165

Table G-25. Themes Emerging when Qualitative Participants Were Asked “What Are Your Thoughts on a Tobacco-free Installation?”

Theme	Number of Qualitative Sources that Mentioned Theme (N=23 total qualitative sources)	Total Number of References to Theme across Sources
Opinions expressing a general lack of support for a TFI.	14	24
Opinions expressing support for a TFI.	7	7
A TFI will infringe on individual rights and freedoms.	13	24
A TFI will have problems with feasibility.	16	29
A TFI is inevitable.	2	5
A TFI will lead to many effects.	18	37
There are facilitators to helping an installation become tobacco free.	9	20
A TFI may be like other tobacco-free campuses.	6	10

Glossary

AIPH

Army Institute of Public Health

AMEDD

U.S. Army Medical Department

APEQS

AMEDD Personnel Education and Quality System

CDC

Centers for Disease Control and Prevention

DENTAC

Dental Activity

DOD/DoD

Department of Defense

FS

Fort Stewart

HAAF

Hunter Army Airfield

HHS

U.S. Department of Health and Human Services

IMCOM

U.S. Army Installation Management Command

IOM

Institute of Medicine

MEDCOM

U.S. Army Medical Command

MEDDAC

Medical Activity

MTF

Military treatment facility

NRC

National Research Council

NVRH

Northeastern Nevada Regional Hospital

PHAP

Public Health Assessment Program

SHS

Secondhand Smoke

SPSS

Statistical Package for the Social Sciences

TFC

Tobacco-free campus

TFI

Tobacco-free installation

USAPHC

U.S. Army Public Health Command

VETCOM

U.S. Army Veterinary Command

Winn AHC

Winn Army Community Hospital

WTU

Warrior Transition Unit