

Evaluation of Arizona State University's Tobacco-Free Campus Policy

Assessment of Policy Impacts and Return on Investment

Executive Summary

June 2014

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Funding provided by:

Maricopa County Department of Public Health



Executive Summary

The Maricopa County Department of Public Health (MCDPH) and the Southwest Interdisciplinary Research Center (SIRC) at Arizona State University (ASU) initiated an evaluation of ASU's Tobacco-Free Campus policy, which went into effect on August 1, 2013. The purpose of this evaluation is to assess the impacts of this policy on the ASU community and environment. This report summarizes tobacco consumption patterns, norms and perceptions surrounding tobacco use, tobacco litter on campus, and overall benefits of a tobacco-free campus both before and after policy implementation.

Methodology

In order to provide a comprehensive assessment of tobacco use at Arizona State University (ASU) and its associated health and financial costs in advance of the implementation of the tobacco-free campus policy, data were collected on a multitude of process, outcome, and cost measures. Data collection methods included:

- **ASU Faculty and Staff Survey**
In 2013, this survey was distributed to all 8,960 benefits-eligible faculty and staff at ASU. More than 3,200 respondents completed the survey for a response rate of 36 percent. In 2014, the post-policy implementation survey was distributed to 8,413 benefits-eligible employees, resulting in a response rate of 37.4 percent (n = 3,147).
- **ASU Student Survey**
In the Spring of 2013, the National College Health Assessment (NCHA-II), including supplemental questions in support of the tobacco-free campus evaluation, was distributed to a random sample of 20,000 ASU graduate and undergraduate students; it was completed by 1,547 students (a response rate of 7.7%). In 2014, an online post-policy implementation survey was distributed independent of the NCHA-II to another random sample of 20,000 students, resulting in a response rate of 18.6 percent (n = 3,728).
- **ASU Student Qualitative Questionnaire**
In order to further evaluate attitudes, opinions, and expectations related to the tobacco-free campus policy, an online questionnaire was administered to all students who reported current tobacco use on the 2014 survey and a willingness to participate in a follow-up assessment (N= 718). This questionnaire resulted in a response rate of 30.8 percent (n = 221).
- **Focus Groups**
Two focus groups were conducted for this evaluation, one with eight member of the ASU groundskeeping crew on the Tempe campus and six staff members from the Tempe campus who currently use tobacco products and were willing to participate in follow-up assessment activities following the online survey. The groundskeepers provided information on perceived policy impacts with respect to tobacco-related litter and the cleanliness of campuses. The staff focus group (response rate 27.3%, n = 6) further fleshed out attitudes, opinions, and expectations related to the tobacco-free campus policy.
- **Tobacco-related Litter in the ASU Environment**
SIRC researchers and students conducted a manual tally of tobacco-related litter (e.g., cigarette butts, cigarette and cigar wrappers, lighters, matchbooks, etc.) across several ASU campuses at three different time points: Spring 2013, Fall 2013, and Spring 2014.

Additional data and information were collected via informal and unstructured one-on-one and group interviews, emails and phone conversations with key staff and student informants at ASU.

Assessment Highlights

ASU Faculty/Staff Survey

- The percentage of respondents who were aware of the tobacco-free campus policy grew to 97.5 percent. The level of support for the policy increased from 80.5 percent in 2013 to 85.3 percent in 2014.
- Roughly seven percent of ASU faculty and staff reported currently smoking cigarettes in 2013 and 2014; approximately five percent currently used other tobacco products in 2013 with this percentage decreasing to approximately 4 percent in 2014.
- A smaller percentage of current (past 30 days) or recent (past 12 months, but not in last 30 days) smokers reported *excellent* or *very good* health than those who have not smoked within the last 12 months, particularly among the 2014 sample.
- There was a 48.8 percent reduction in the amount of secondhand smoke respondents reported being exposed to on campuses between 2013 and 2014.
- Respondents reported a 27.4 percent reduction in frequent reports of tobacco-related litter between 2013 and 2014.
- The majority of staff and faculty reported that the tobacco-free campus policy either *greatly* or *somewhat* reduced the amount of tobacco-related litter (61.9%) and secondhand smoke (61.6%) they are exposed to on campus.
- The majority of respondents believed that ASU campuses should remain 100 percent tobacco-free. The most frequently endorsed policy enforcement method was to give warnings to violators of the policy, followed by issuing a small fine.

ASU Student Survey

- In the spring of 2014, 88.5 percent of respondents were aware of ASU's tobacco-free campus policy. The majority of these respondents also believed that the policy was adequately communicated (59.5%).
- More than eight in ten students (81.2%) reported supporting the tobacco-free campus policy in 2014. This is about a 3 percent increase in support from 2013.
- Approximately 14.7 percent of ASU students were current cigarette smokers in 2013 and 13.3 percent are current smokers in 2014, indicating a 9.5 percent reduction in use. However, current use of smokeless tobacco, hookah, and e-cigarettes increased.
- By 2014, the proportion of students reporting frequent exposure to secondhand smoke was nearly cut in half. Furthermore, there was a 20.8 percent decrease in the amount of tobacco-related litter observed following- policy implementation.
- By 2014, slightly more than 18 percent of student tobacco users felt that the policy had an influence on their quitting.

- More than half of student respondents attributed reductions in secondhand smoke (54.6%) and tobacco-related litter (53.6%) on campus to the policy.
- The majority of respondents believed that ASU campuses should remain 100% tobacco-free. However much like staff and faculty, a large proportion of respondents felt that there should be designated smoking areas on campus to accommodate tobacco users.
- As with the faculty/staff survey, the most frequently selected policy enforcement technique was to give warnings to violators of the policy, followed by issuing a small fine and reporting the violator to student conduct or a supervisor.

Student Qualitative Questionnaire

- Many students, mostly non-users, reported that the overall campus environment had improved as a result of the policy. They believed that campuses were cleaner and that the policy resulted in fewer smokers and secondhand smoke. However, both users and non-users acknowledged that the policy likely just shifted where people smoke, such as behind buildings and in stairwells.
- Tobacco users, however, felt that the largest impact of the policy was that it led to a less friendly campus characterized by more interpersonal conflict. Smokers reported feeling “harassed.”
- Respondents reported concerns about policy enforcement and suggested implementing designated smoking areas as a solution to noncompliance.

Staff Focus Groups

- Participants liked that the tobacco-free campus policy was a good influence on health and smoking habits. They believed that it encouraged smokers to take fewer breaks and to smoke less on campus as the policy makes smoking less convenient and less socially accepted among college students.
- Participants also reported appreciating that campuses were generally cleaner and fresher smelling.
- Participants believed that the policy had a limited effect on encouraging smokers to quit and that it had no impact in their off-campus behavior.
- Respondents reported concerns about policy enforcement and that the soft, or peer, enforcement invites interpersonal conflict among staff and students. A recommended solution was to designate authorized individuals to deter smoking through visual cues.
- Staff also believed that the policy may have shifted where people smoke and that it is happening in more hidden areas where tobacco-related litter has been accumulating. A suggested policy solution is to designate specific smoking areas on campuses.

Tobacco-related Litter in the ASU Environment

- Cigarette butts made up the vast majority of tobacco-related litter and were most commonly found in the garden strips between sidewalks and public streets, on the edges of sidewalks (especially those along public streets), in flower beds, and in the grates surrounding trees.

- Policy implementation may have had an influence on smoking behavior, and therefore the amount of smoking-related litter. Litter counts on each campus generally declined across each data collection point, anywhere from 32 percent to 82 percent.
- Some of the largest percent decreases were noted on the Downtown campus, in particular around Taylor Place and on the Taylor Mall.

Summary of the Return on Investment (ROI) Analysis

The strategy employed to estimate the return on investment associated with the tobacco-free campus policy focused on health benefits and reduced healthcare costs generated by the policy. The ROI assessment found the following:

- Benefits of the Tobacco-Free Campus Policy exceed the costs.
- Using the proportion of smokers that had quit for 30 days, the 2013 staff and faculty survey respondents had a quit rate of 35.9 percent while the 2014 respondents had a quit rate of 34.6 percent.
- A significant shift in smoking rates was not observed among students following the implementation of the tobacco-free campus policy.
- However when comparing survey respondents who started smoking after coming to ASU, but who have not smoked in the last 30 days, there is a statistically significant drop from 11.4 percent to 5.6 percent from 2013 to 2014. Applying this percentage to the overall student population suggests that as many as 4,200 fewer students may have tried smoking for the first time while at ASU in the year following the implementation of the tobacco-free campus policy.
- Assuming that 25 percent of the 4,200 student smokers that were deterred from trying cigarettes for the first time eventually became heavy smokers, then they would each have ultimately incurred the \$229,837 in social costs associated with a lifetime of smoking. This would result in an aggregate present value cost of \$241,328,850.
- Given that the entire costs of implementing the program totaled roughly \$80,000, the lifetime return on investment of this policy for just one person would be 280 percent.
- These evaluation results do not indicate any significant cost savings to ASU due to changes in faculty and staff tobacco use that can be attributed to the tobacco ban.

Conclusions

- In general, survey results demonstrate that the majority of students, staff, and faculty support a tobacco-free campus, and a smaller proportion of smokers indicated that the policy had some influence in reducing their tobacco use. Furthermore, significant reductions in perceived levels of tobacco-related litter and secondhand smoke were reported following implementation of the policy.
- Survey data reveal that at this point the most visible change in actual smoking behavior that coincides with ASU's adoption of the policy is a significant reduction in students trying cigarettes for the first time following their enrollment in ASU.

- The lifetime cost savings in deterring new, regular smokers would justify adoption of the policy.
- Concerns remain related to compliance and soft enforcement methods for the policy. Many feel stronger methods, such as the involvement of authorized ASU personnel in issuing warnings or fines, would be more effective.