

Introduction:

Smoking tobacco results in many detrimental health effects, not only to the smoker, but also to those exposed to the smoke secondhand. Cigarette smoke has been tied to lung cancer, asthma, emphysema, mouth and esophageal cancers, and many other illnesses (1). These illnesses are not limited to those who actively smoke, but affect those who are present around tobacco smoke, or live in homes of smokers (2). This secondhand smoke impacts all those who are forced to be around smokers.

While we can recognize the right of smokers to smoke, we should also recognize the right of non-smokers to live in a smoke-free environment and to avoid undue exposure to the chemicals contained in tobacco smoke. The health effects of those exposed to even minimal amounts of secondhand smoke range from asthma irritation to cardiac problems (3). Additionally, studies have shown that the health of the entire community is improved when legislation promotes smokefree or smoke-reduced environments (4).

The current university policy on tobacco smoking is for it to be limited to the outdoors, and more than 15 feet away from any building. The intention is to provide a smoke-free environment within classroom buildings and to prevent tobacco smoke from entering the building ventilation system. Smoking in all other outdoor regions of the campus continues to be permitted. However, there is no reason for the right to a smoke-free environment should end at the doorway.

A recent survey of undergraduate students in the Honors College showed that only 1 in 20 actively smoke, making smokers a small minority on this campus (5). Although there is a potential bias in selecting students only from the Honors College, it is reasonable to a survey of all undergraduates would have similar results. While the rights of the few should not be ignored,

neither should the health of the student body be neglected. With growing trends of restricted smoking and campus-wide smoking bans around the country (6), it is worth reevaluating the current smoking policy at the University of Maryland.

Problem Statement:

Tobacco smoke is a potent carcinogen and its effects have been known for many years. However, more recent research has made clear the detrimental effects of tobacco smoke on those who do not smoke, but are exposed indirectly. This environmental tobacco smoke, or second-hand smoke, has been shown to be associated with increased incidence of asthma and lung disease (3). Even newer studies have been published suggesting the presence of "third-hand smoke," the idea that the smallest particles within the tobacco smoke linger in the air long after the visible plume and odor have faded (3). Additionally, there is information suggesting that tobacco smoke leaves a film or residue on surfaces, which can come into contact with skin and cause problems (1).

The University currently has a policy on smoking that restricts tobacco smoking to outdoor locations at least 15 feet from any building or ventilation system. Theoretically, this prevents tobacco smoke from entering the building, providing a smoke free indoor environment. However, it is not merely the inside of buildings that should be smoke free, but the outside as well. Studies have shown that exposure to second-hand smoke outside can be just as harmful as exposure indoors (3). Additionally, certain areas of the outdoor regions of campus can be just as restrictive and poorly ventilated as a building. One such example is a smoker who is walking along the sidewalk, while someone behind him or her must walk in the same direction. This person is exposed to a large amount of second-hand smoke, yet has no viable alternative to following the smoker.

Compounding this issue is the other issue of smoker non-compliance with the official policy. A survey of undergraduate students revealed that violations to the campus policy are seen with some frequency, with only 5% of students reporting that they have never witnessed a violation of the current policy (5). Observational notes from these students suggest the largest issue is smokers being within 15 feet of a building during foul weather (5). This violation is a representation of how difficult the current policy is to enforce. It is unclear who has the authority to designate the 15 foot smoking exclusion zone, nor who is responsible for enforcing the rule in general. Such complications will always be present when the policy is one of a given distance from a building.

Previous attempts to change this policy have focused on a campus wide ban of smoking. This ban would prevent smoking on campus entirely, rendering moot questions about how many feet a person is away from a building, but increasing the questions about who should enforce such a ban. Having campus police or other security officials in charge of enforcing the ban is a waste of time, money, and manpower. There are always areas of the campus for smokers to avoid detection. Adding to this, there is no clear agreement on what the result of an infraction should be, whether a fine, warning or other form of citation. Particularly opposed to the banning of smoking on campus is the Graduate Student Government (GSG). The GSG raises the concern that graduate students have limited break time between their classes and research obligations (7). Those who smoke would have to leave campus and come back to meet the demands of the ban, costing precious time. Other campuses across the country that have smoking bans tend to be much smaller, presenting the University of Maryland with a unique challenge (6).

In a recent survey of undergraduate student opinions on smoking and the current smoking policy, students indicated that though they themselves do not smoke, they are not in favor of a

campus-wide ban (5). As can be seen in Figure 1, of the 39 individuals surveyed, only 12 supported a full ban, while 18 supported restrictions that did not go as far as a ban (5). These findings mirror those at the national level, which suggest that most college students would prefer a smoke free environment (8). Many students cited the unfair nature of a full ban; one student called it a "tyranny of the majority" and several raised concerns similar to the GSG (5). The university could build on this compromise between the current policy and a full ban by obtaining student input on a variety of amended proposals and thus find a policy that fosters better public health while ensuring student support for such a measure.

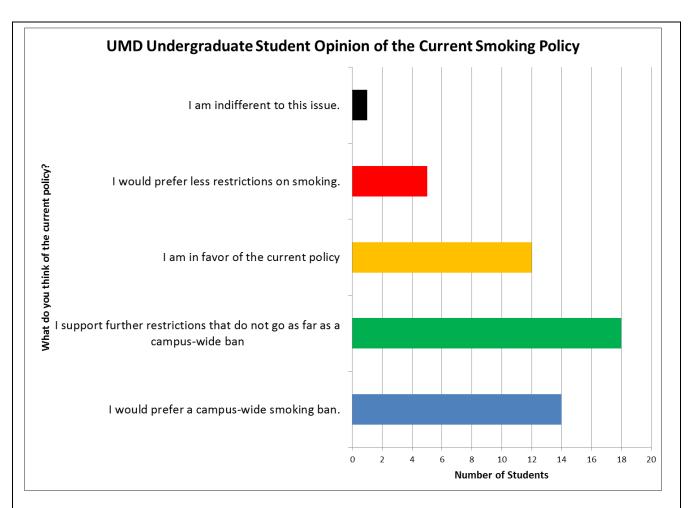


Figure 1: The number of students who support each possible amendment to the school smoking policy or express their indifference. Each student was able to select multiple options (total student number = 39; 5)

It therefore becomes clear that the solution to the problem of on campus smoking is a new policy that is more restrictive of smoking designated areas, but does not ban smoking from campus entirely.

Solution:

The issue of smoking on campus requires a compromise between the current policy and a campus-wide ban. As mentioned previously, more students favored a restricted smoking policy than either a campus wide ban or the current policy. The development of a more restrictive smoking policy has benefits that are a compromise between the two options previously considered by this university. This policy would be composed of locations throughout campus where smoking was permitted, with a ban on smoking through the rest of campus. These locations would be spaced to be approximately 5 minutes walking time from any location on campus.

One of the most vocal opposition groups to a campus-wide ban was the Graduate Student Government, who notes that graduate students have a limited break time and thus leaving campus to smoke cigarettes was not a feasible option (7). However, with the restricted policy model, graduate students would still be able to smoke on campus, however not as freely as they currently can.

A survey of undergraduate opinion noted that the most common violations of the smoking policy occurred on bad weather days and involved smokers within the 15 foot perimeter for buildings. One student wrote, "Often you see smokers just outside the door in rainy weather" (5). Currently, it is difficult to determine where the 15 foot perimeter is around campus buildings and for this reason infractions seem common and enforcement seems difficult. With a restricted

policy as outlined above, there would be no perimeter to be concerned about, merely the restriction to a well-defined, smoker-permitted area. Additionally, if these smoking areas were designed with shelters present, the current issues in poor weather would be avoidable. Shelters would also provide a less stigmatizing region for smokers to gather, while not infringing on other students' right to a smoke-free environment (9).

Currently on campus it is impossible to avoid smokers outdoors. Smoking occurs along sidewalks and major routes throughout the campus, often forcing other students and faculty to endure the secondhand smoke. If smoking were restricted further, such paths would be clear of tobacco smoke and those who are more sensitive to tobacco smoke can plan their trip around campus with smoking areas in mind.

One possible layout of the designated smoking areas is described in Figure 2. The red circles designate permitted smoking areas. The locations have been selected for ease of access for smokers while remaining out of the major pedestrian pathways to reduce unwanted secondhand smoke exposure. The layout of Figure 2 is based solely on personal experience of campus travel paths and does not reflect any significant research. However, the image does reveal how smoking can be contained to a miniscule proportion of the campus while being located within walking distance of almost all regions of campus. A public forum or exploratory committee may be able to amend the proposed map, creating a better design.

Campus Map with Proposed Designated Smoking Areas

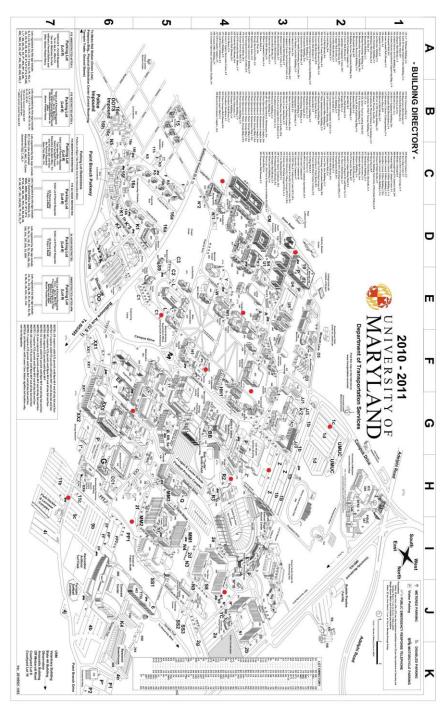


Figure 2: A map indicating regions on campus where smoking would be permitted, noted by red circles. These areas would potentially be located under pavilions to better mark the region and to provide foul weather protection. Image adapted from University of Maryland (http://www.umd.edu/CampusMaps/campus_maps.cfm)

Aside from public opinion, the other critical concern is financial. The smoking areas would require areas for cigarette disposal and potentially shelters for foul weather. Determining how to proceed with enforcement is another issue as well; who should enforce the restrictions and what consequences should there be for violation are important considerations. The best model for the University to follow is that of Towson University. While Towson has instituted a campus wide ban, the issue of enforcement is the same. The smoking ban at Towson is enforced by campus police and officials and carries a \$75 dollar fine, the same cost as an on campus parking ticket (10). The money obtained from these fines funds the program, including no smoking signs (10). While the goal is not to extract money from smokers, it is fitting that the fines for smoking would pay for the initial structures and signage. Enforcement does not require extra funding, as it is enforced by campus officials already in place.

A second source of revenue is the money saved in campus cleaning. The litter associated with tobacco smoking is quite substantial, from cigarette butts to more frequent cleaning of buildings. A recent study in New York City showed that by banning smoking in public parks and beaches, the city could save millions of dollars in cleanup (11). The University of Maryland's savings if smoking was restricted could be significant and is worth considering for this financial gain alone. The money saved in clean up could be put to use in educating the public about the new policy and establishing foul weather shelters in the smoking permitted areas.

Some might argue that changing the policy is not worth the cost and alterations necessary. However, there are direct health benefits to the majority of campus residents and visitors if tobacco smoke can be limited on campus. Additionally, the cost of this altered policy is minimal and can be funded in part by tobacco use citations. Enforcement of the current policy is lax. Only 2 students out of 39 surveyed reported having never witnessed a violation of the

current smoking policy (5). Even with imperfect enforcement of the revised policy, the benefits to health and campus appearance are great enough to merit these changes.

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