# Freshman 15: Are Universities Doing Enough?

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Freshman 15 has been identified as a major medical issue on college campuses for over a decade. Scholars have indicated that Freshman 15 treatment options need to include physical fitness, nutrition, and counseling. Our analysis of the web sites of 45 major universities indicates that most schools need to improve their communication methods if they are going to successfully provide intervention to their students.

Keywords: Freshman 15, sustainable agriculture, physical fitness, counseling

Articles in *The Journal of American College Health* in the first decade of the 21<sup>st</sup> century warned colleges and universities that their students are at risk for significant weight gain, with associated health risks, nicknamed the Freshman 15 (Trockel, Barnes, & Egget, 2000; Pedersen & Ketcham, 2008; Jung & Heald, 2009). The research indicates that not only is the Freshman 15 a major health issue on college campuses, but that other factors should be considered if universities are going to develop effective intervention strategies.

In light of the attention identified with the Freshman 15 issues, the authors decided to review how universities are meeting the multiple challenges posed. In a survey of programs described on university's web sites, the authors found that every school has created a response to growing concern over the Freshman 15. Not every response, however, seems likely to be effective. A handful of programs reach out and engage students most at risk even before the mini fridge has been plugged in. Most of the surveyed schools have created programs that require students to make various levels of effort to receive help. But as the literature review suggests, the students most vulnerable are those least likely to seek assistance. The purpose of this paper is to review the response to the Freshman 15 in a nationally representative group of major universities, to identify communication programming strategies, and to highlight the best

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practices by the schools being the most aggressive in seeking to head off the Freshman 15.

From a media perspective, our research found that many universities relied too heavily on web pages to convey information on what those institutions believed was a serious health issue on their campus. In effect, our analysis is that they believed that posting on the web was a solution in and of itself. However, the multi-channeled communication approach of a handful of universities indicates that relying on the web as the sole channel of communication is likely to be ineffective.

### **Literature Review**

The scholarship on the Freshman 15 suggests that a multitude of factors are interacting to contribute to the problem. According to a 2008 survey at over 100 schools conducted by the American College Health Association (2009), the lifestyle habits associated with the Freshman 15 are substance abuse, increased sexual behaviors, weight gain and improper nutrition. Females typically experience the strongest effects from the Freshman 15 phenomenon and its associated lifestyle habits. Females are the most likely to be the victim of relationship violence, physical problems, and mental health issues (478). Only 8.5% of the over 80,000 students surveyed for the American College Health Association (2009) will eat a healthy diet (480). Less than 50% exercise enough to stay fit (480). As a result, 31.9% will be overweight or obese (482). A total of 15.9% will suffer physical, sexual, or emotional abuse (482). About 50% engage in vaginal intercourse; over 3% will contract an STD (483). Seventy-eight percent drink alcohol; 30% engage in risky behavior under the influence (484-485). Drug use reaches about 5% (486). Altogether, one-third report emotional problems (487).

Thomson (2009) believes that diet and health issues are direct manifestations of the mass media. Public health advocates, while conceding that individuals should make responsible choices in eating and exercise, have framed the obesity problem as a social issue in need of large-scale public health interventions. In particular, public health advocates have criticized national mediated food-marketing strategies, such as increases in portion sizes, pouring rights contracts (for sodas in schools), the use of popular characters and celebrities to sell high-calorie, nutrient-poor foods, and the bundling of toys with fast foods and sugary cereals to appeal to children (3). The end result, argues Thomson, is that marketing makes food and eating appealing, but then body fat becomes a "discursive element" against which personal responsibility is assigned (3).

Other external influences are implicated as contributing to the target problems. The discursive element of body image creates a hostile environment for young women (Krcmar, Giles, and Helme, 2008). In their study of body image among incoming freshman women, Krcmar et al. found that parents and peers were among the strongest critics of a woman's body, which contributed to a negative body image. Pedersen and Ketcham (2008) also found that college campuses were "hostile environments" for overweight and obese women, despite the fact that college campuses should be a location where overweight and obese people have the opportunity to easily access exercise facilities, mental health and nutrition counseling for a low cost (468). Jung and Heald (2009) note that only about 40% of college students engage in vigorous exercise and only about 20% exercise moderately. The other 40% have no regular exercise plan. The result for those who did not exercise enough is weight gain (527). These problems developed as a college student may lead to a lifetime of increased risk or incidence rates for diabetes, cardiovascular disease, high blood pressure, and other

chronic health issues resulting from lack of exercise (Gaziano, 2009).

Jung and Heald assert the counter to The Freshman 15 and related issues is more information and education, but the health communication has to be strategically planned. "*Strategic planning* is deciding where one wants to be in the future (e.g., increasing physical activities) and how to get there (e.g., discriminate messages)," they explain (534). "It sets the health communication campaign's direction proactively, avoiding the waste of resources and routine repetition of activities" (534). Health communicators must critically evaluate the situation and then develop appropriate strategies, argue Jung and Heald. "The development of discriminate messages can be considered a creative message development strategy, which involves the coordination of multiple tactical methods—news releases, Web pages, special events, brochures, newsletters, and so on."

Steele and Fullagar (2009) found that college students respond most positively to communication that is personal and expresses concern for the individual (18). Their conclusions are consistent with those of Mills, Heyworth, Rosenwax, Carr, and Rossenberg (2009), who found that mentoring first-year students greatly increased retention and improved grade points (213). These conclusions would not be surprising to those in health care communication. Personal relationships are more important to changing patient behavior than just the transmission of health information (Ball-Rokeach and Wilkin, 2009; Kreps, 2008). Reznik and Roloff (2009) suggest that creating communities greatly benefits health communication. "Individuals with a communal orientation want to help and benefit the other person when he or she is in need, and they are more likely to help than those in other types of relationships" (168). Rains (2008) argues that relying too much on web-based information carries risk. Not only is there a lot of misinformation on the web, but only those people with a strong "locus of control" can effectively access what they need (5).

The Office of Disease Prevention and Health Promotion in its *Healthy People* 2010 report also notes that the web is a great resource for information, but that the information is often of limited value. The report warns health communicators that they need to think strategically. "Research shows that health communication best supports health promotion when multiple communication channels are used to reach specific audience segments with information that is appropriate and relevant to them" (The Office of Disease Prevention and Health Promotion, 2010, Cpt. 11, p 8).

To summarize, The Freshman 15 is both a cause and an effect, as the literature points out. The weight gain is a problem in and of itself. More importantly, it is a manifestation of other psychological and sociological problems. It is also an indicator of future health problems. The literature review suggests a template for what colleges and universities should be doing.

The psychology of the student may be the origins of Freshman 15. What passed for coping skills at home may not be effective in a university dorm room. Sociologically, students are in a new environment and may be without a support group. They face the stress of being away from home and being solely responsible for all aspects of their lives, both personal and academic. The psychological and sociological factors can lead to mental health issues and risky behavior (smoking, overeating, binge drinking, risky sexual behaviors), which raise the stakes of the Freshman 15 beyond gaining 15 pounds.

The food environment found on our college campuses today creates many dietary obstacles contributing to unhealthy lifestyle choices practiced by students (e.g., Wider, 2006;

Wengreen & Moncur, 2009; Butler, Black, Blue, & Gretebeck, 2004; Levitsky, Halbmaier, & Mrdjenovic, 2004). The vast majority of universities requires or strongly encourages students to purchase a university meal plan that grants access to a cafeteria or series of cafeterias that provide buffet style offerings. Most of the food choices available to students are calorically dense, high in sodium and/or loaded with sugar or some other form of refined, high calorie sweetener. Unfortunately, many current college age individuals have grown up in an era where fast, convenient foods have been a part of daily life. Students not only accept the presence of these aforementioned items daily on the buffet, they expect them.

A food service department has dual functionality in the university setting. Its most obvious function is to provide food for students, the other is to make a profit. Often times, value added products such as chicken fingers, pastries, corn dogs, pizza and French fries are purchased very cheaply by the university and are well accepted by its students. Fresh, seasonal fruits and vegetables, whole grains, lean meats and low fat dairy products tend to occupy the least amount of space at the buffet, are selected less frequently by students and are the most costly for food service departments to purchase from their distributors. Reliance on large-scale distributors for food purchases has also negatively impacted the true family farm and local food environment. Instead of seeking out a local supplier for wholesome, nutritious foods whose purchase supports the local economy and reduces the carbon footprint by decreasing the distance food must travel to reach the plate, food service procurement relies on what their distributor carries. The foods offered through a distribution company are grown in various locations of the country or in another country all together. This creates another disconnect from food for students. Most students and people in general are unfamiliar with what season a particular food grows in because they always have access to it, regardless of the season. Foods that are picked before reaching full maturity have been found to contain lower levels of vitamins and minerals (Real Age, 2009; Rickman, Barnett, & Bruhn, 2007). Universities and colleges have the extraordinary opportunity to be an agent of change for the current food environment that supports healthy students through improved food choices. the local economy by increased revenue from local food purchases and the world by decreasing food miles, thus reducing their carbon footprint.

Exercise programs require the person to have discipline and motivation, even if the student facilities are excellent. The fit easily find a place at those facilities, but the overweight and obese stand out as being people with a problem. Despite the fact that healthy alternatives and exercise facilities are virtually always available, the college environment is not always conducive to the achievement of proper health and weight. Other elements build an environment that encourages unhealthy lifestyles.

Finally, health communication works best when the information is personal and individualized, argues Rains. Web pages are impersonal and require students to make a motivated effort to find the information. Most of that information requires them to then seek out professionals or make lifestyle changes on their own. As Rains (2008) points out, effective health communication is proactive, seeking out and engaging as well as informing students.

If colleges and universities are going to effectively respond to the Freshman 15, they are going to need programs that reach out to students and communicate with them effectively about sociological and psychological university environments, exercise, and diet. The good news is that this research found some programs that are approaching Freshman 15 from a unified, multi-dimensional approach that recognizes the complexities of the issue. The bad news is that most are not, despite the decade of research on the Freshman 15.

This review of the web sites of 45 major universities indicates that most schools are not communicating strategically. The authors will review the small number of programs who do. These programs create a template that other colleges could replicate. The authors will discuss some of the problems we identified at other universities. Finally, the authors will discuss the elements that are most effective in helping schools stave off The Freshman 15.

## Methods

During the summer of 2009, the authors reviewed the programs at major universities in four football conferences, which were chosen because the universities in these conferences are likely to reflect national trends. The authors examined websites at each school. Specifically, they reviewed the channels of communication used by schools to reach students with health-related information. Further, the authors wanted to know if the schools had programs targeted to the major Freshman 15 issues: diet, exercise, sexual behavior issues, drug and alcohol abuse, and mental health. They also examined the administrative aspects of each program. Were these programs handled through the health center, the counseling center, recreational facilities, or some combination of these offices? Was the information available online? What experts were available to the students and through what avenues? The authors also looked for classes, the formation of student groups, and peer education.

Four major conferences were selected: the Atlantic Coast Conference (ACC), Big 12 Conference, Pac 10 Conference, and Southeastern Conference (SEC). These conferences were selected because of their geographical diversity. It can also be assumed that the schools in these conferences are representative of the vast majority of college programs nationwide.

## Results

## The Wellness Wheel

Of the 45 programs we reviewed, perhaps the most integrated program was The Wellness Wheel at the University of South Carolina. At most universities, the health center directed health-related programs while counseling and recreation ran programs in their specialties. The Wellness Wheel is a holistic program symbolized by a wheel divided into occupational, physical, social, spiritual, intellectual, and emotional programs. Each area includes internet information, classes, peer education, and peer groups. For example, there are fitness buddies and learning/living communities; there are groups formed in everything from massage to stress management. The Wellness Wheel includes outreach, such as a workshop on "fall foods to keep you moving" and "bike to the boardwalk." Along with the scope of the Wellness Wheel, the most unique element of the South Carolina program is that everything is coordinated by the Health Carolina Task Force (http://www.sc.edu/healthycarolina/taskforce.html). No other program in the set of universities reviewed had a coordinating task force.

Other programs also stood out. Duke students can join the Healthy Devils and Texas A & M offers students Aggie Reach. University of Miami students may become part of True to U; University of Florida gives students the opportunity to be a part of GatorWell Health Promotion. Texas has Healthy Horns. All of these are comprehensive programs in diet, fitness, mental health, substance abuse, and lifestyle choices. They include group support, some peer education, and selected outreach programs.

Vanderbilt had a wellness resource center, which few other schools had. Kansas State requires incoming freshman to take a three-hour, on-line class, which seeks to teach students healthy lifestyle choices. University of Arkansas offers lifestyle classes and events. University of Georgia students can join *in Sickness and in Health*.

#### The problems

Every school had web sites filled with information, providing links to even further resources. The links did not always work—University of Kentucky—or the web pages were difficult to navigate—specifically University of California. If the web was a communication panacea, then there would be no Freshman 15 because everyone provided some information. Well, maybe not University of Florida students. The Florida web site had four paragraphs on how to avoid the Freshman 15. The solution was to "walk to class." North Carolina State cancelled most of its programs due to budget cuts.

From a communication perspective (Rains 2008), the web is only a panacea when the students are highly motivated to go to the web site, search for self-help information, and to incorporate lifestyle changes on their own. As this literature review indicates, the people suffering most frequently from the Freshman 15 are not likely to be motivated enough to search web sites, carry out the web suggestions, or to make appointments with professionals. The people most likely to need assistance are not going to seek help, are not going to make appointments with dietitians or research healthy diet choices, and are unlikely to begin an individual fitness routine. They are not going to join support groups unless someone reaches out to them first.

Viewing the 45 web sites from a communication perspective, most of the programs available are unlikely to help the people who need help the most. Besides South Carolina and the five other schools with comprehensive programs already mentioned, few schools are doing much to help students if the students do not take the initiative. Two other schools had fitness programs and nine more had some kind of club, such as an outdoor adventure club. Sixteen schools had some sort of peer mental health programs. Nineteen schools had proactive sexual education programs. There were 17 proactive programs for substance abuse. Alcohol, drugs, or tobacco were most common. Five schools had counseling outreach programs. Eleven schools had peer or group support programs in at least one area. Twenty schools had peer education groups.

If the indication of an excellent student program on diet, fitness, mental health, substance abuse, sexuality, and lifestyle choices requires excellent communication, the logical conclusion to draw from this survey of 45 university web sites is that only a handful of schools—less than 25%—are reaching the students most likely to be a Freshman 15 statistic. This is a decade after *The Journal of American College Health* brought the issue of The Freshman 15 to the attention of universities.

## Solutions

#### **Proper nutrition**

There are many poor dietary practices and lifestyle behaviors that are developed and adopted by college students, many of which can be attributed to environmental influences and social situations. This population often snacks on the go or late at night on calorically dense, nutrient devoid snacks and convenience foods, consumes moderate to large amounts of alcohol, has inconsistent meal patterns and participates in unsafe weight loss techniques (Marietta,1999; Brevard, 1996). To change our student's knowledge and attitudes toward food and nutrition a comprehensive strategy must be in place to address this.

Education is always a strategy to influence change. What schools are educating students on and how those messages are disseminated are a challenge in an era where channels of communication continue to evolve. Several studies have found that students utilized nutrition labeling both in and outside of the dining hall setting to help make healthy, or at least informed dietary choices (Driskell, 2008, Kreuter, 1997). A study of university students that used a dining hall nutrition labeling program to help make food choices indicated they would like access to this information online (Driskell, 2008). The authors of this study believed that students would be better equipped to plan their dining hall meal if they had access to the nutrition information online. However, having access to food labels and ingredient information is only part of the challenge, students and the general public need to be educated on how to read and interpret a food label for everyday living. Misra (2007) found that one third of college age respondents were unable to do food label comparisons, indicating a specific need for nutrition labeling education. Prior nutrition education played an important role in nutrition label comprehension and the majority of respondents felt the nutrition label was an accurate, useful and easy tool to understand. In 2007, New York passed a law that requires most major fast-food and chain restaurants to prominently display calorie information on their menus. Other states are also lobbying for more strict food labeling laws. This push to increase the visibility of food labels in the public sector demonstrates the necessity of educating students on how to make healthy, informed choices for life in the university setting and beyond.

Nutrition education must be an omnipresent opportunity for students. Nutrition education should not be limited to the classroom, but also included in the online and social setting. The University of Georgia provides online nutrition education lessons that help students assess their current diet and provide information on other dietary related topics. Students at this university who are on the meal plan may take advantage of free services, such as individual counseling, nutrition education stations, and an Eating Smart class offered Fall & Spring semesters (http://www.uhs.uga.edu/nutrition/services.html).

Attitude change is another area of focus for improved, lifelong nutrition behaviors. In addition to basic nutrition education, students are residing in an ever more socially conscious world. Terms such as sustainable living, locavore and carbon footprint are a part of everyday language and conversation. The upcoming generation would benefit from learning how food choices directly impact the world they are residing in. The impact of food production, along with the pros and cons of various farming and animal husbandry techniques should be an area that nutrition educators should address when reaching out to students. Organic foods, cage free eggs, free range chicken, and grass fed beef are some of the emerging food trends that nutrition professionals should offer information on. These topics offer the perfect opportunity to connect human nutrition to environmental health & stewardship. By teaching people when they are young to think outside of their plate, universities are providing them a lifelong opportunity to see food as something more than an item of consumption.

## Exercise

Americans are largely sedentary, and college students are no exception (Taliaferro, et al., 2008). As with nutrition, knowledge of the benefits of exercise and availability of

exercise options is not the primary problem. Virtually every college, and every school in this survey, has or has access to some type of recreational facility or facilities. Students usually have access to these facilities paid for in their student fees. There are many opportunities for students to get involved, but only half (ACHA, 2008, 480) of students actually meet the recommended physical activity guidelines.

Two potential problems may be associated with these students not taking advantage of the plethora of active opportunities at their disposal. The first is that many students may not feel comfortable working out at the fitness facilities provided. These facilities may be extremely crowded at times, especially the beginning of the semester, or may have a largely social component that frustrates many serious exercisers. The second problem is that many students, particularly freshmen, are not well acquainted with the recreational or club sports available to them.

In this research, two primary themes were present when activity opportunities were examined. First, many basic fitness services (assessments and basic programming) were offered only for a fee at many college fitness centers. Even basic body fat assessments which may take only minutes were an extra cost to a population notoriously low on extra spending money. Second, health and wellness programs largely ignored recreational sports and clubs, virtually eliminating one of the best opportunities for students to get involved and stay motivated and accountable to being active. Health communication efforts need to partner with these recreational and club sports in order to help keep freshmen active.

On the positive side, University of Kentucky provides a free assessment (http:// www.uky.edu/StudentAffairs/CampusRec/fitnessAssessment.html). University of Washington has a walking club (http://www.tacoma.washington.edu/studentaffairs/SI/RSOs/ Walking.cfm). University of Auburn offers fitness classes, intramurals, clubs sports (badminton to bass fishing), to a lifetime fitness and wellness program (http://www.auburn.edu/ student\_info/student\_life/recreation/). Both Oregon State University (http://oregonstate.edu/ recsports/fit-passes) and University of California-Berkeley (http://calbears.berkeley.edu/ insidepage.aspx?uid=6bfa9c05-96b4-48d7-ba30-965c4428afa3) provide peer classes, but charge fees to be members.

#### Psychological

Peer groups and peer classes, similar to those created at South Carolina, are a strong first step in heading off the addiction issues (tobacco, alcohol, sexual behavior) and the counseling situations (stress management, depression) linked to Freshman 15.

For stress management, Student Health Services Counseling and Human Development Center at South Carolina has loaded several stress tapes that students can download (http://www.sa.sc.edu/shs/chdc/stressfree.shtml). A coed peer group focuses on interpersonal issues, including lesbian (gay, bisexual and transgender) lifestyles, violence in relationships, and sexual assault prevention (http://www.sa.sc.edu/shs/shvp/share.shtml). Students coping with more immediate issues (stalking, hate crimes, post-traumatic stress, and self-injuring) are referred to counseling services (http://www.sa.sc.edu/shs/shvp/ipv.shtml).

South Carolina also has created a proactive, living program for students. The Healthy Carolina Community (HCC) is open to undergraduate students, including incoming freshman. The goal is to "Live with other students in an environment that encourages and promotes the development and maintenance of a healthy body, mind, and spirit" (http://

www.housing.sc.edu/rsl/healthyc.html). A newsletter from the HCC is sent to the campus community. Seminars are run two or three days a week during the school semester (http:// www.sc.edu/healthycarolina/wcevents.html). All of these programs are overseen by a single group, Healthy Carolina Task Force. The Task Force is composed of chairs, who oversee committees on tobacco, substance abuse, sexual health, nutrition, physical activity, healthy relationships, mental health, and employee health (http://www.sc.edu/healthycarolina/ taskforce.html).

The strengths of the South Carolina program are obvious, but deserve enumeration: (1) creation of a student community promoting a healthy lifestyle; (2) programs and peer groups created to help students who need to be part of an intervention committee; (3) education and outreach into the university community; (4) a professional counseling center; (5) an oversight committee that creates program unity.

# Limitations

Possibly, the authors missed some programs offered by the schools whose web sites were searched. Some schools may not put their programs on the web and use other means of publicity to inform their students. From a communication standpoint, university campuses are notoriously difficult places to spread information since no single channel of communication reaches all students in any given period of time. Any communication problem the authors had to overcome makes it increasingly unlikely than the students most in the need were going to overcome the obstacles.

# Discussion

Freshman 15 is a well-recognized problem on college campuses. Research by the ACHA suggests that weight gain is both a health issue and a symptom of social, psychological, and environmental problems that surface as a student leaves home and begins life on a large, college campus. Universities that seek to address Freshman 15 recognize that they need to provide discussions on diet, exercise, and psychological issues. Some schools also seek to provide healthy social environments.

This research shows that some universities have created multi-layered, proactive programs. First, they are communicating directly with the students through classes, orientation sessions, and outreach. Second, they seek to create communal experiences by creating social peer groups. They also make it clear that participation makes the person part of the larger campus community (i.e., Health Longhorns and similar groups). Third, they backup the communities with professional staff (registered dietitians and fitness experts) and campus resources (fitness centers, health clinics, counseling centers), which can provide individual help. Fourth, they use the web as a common ground for finding out information and providing contact information. Fifth, they teach a lifestyle centered on a healthy diet, exercise, and psychological wellness. The result is a university environment that encourages students to choose a healthy lifestyle.

In comparison, other universities have reactive programs. They act after students have been proactive. First, these schools require students to seek out information on the web or by going to professional resources. Second, students have to make contacts and appointments. Third, students have to pay fees. Fourth, they are offered information on how to change their lifestyle. They expect the web to be a means by which students educate

themselves. Fifth, on an individual basis or by joining communities they can begin a new lifestyle.

Most universities included in this web analysis are somewhere in the middle. They provide the basic support services. They have professional staff available. They have web sites. They believe students are at risk. They rely heavily on the web to be a proactive means of communication.

#### Conclusions

If universities find it cost-prohibitive to develop prevention programs targeting all incoming freshmen, perhaps they could implement a screening program to identify the freshmen at greatest risk for developing the freshman 15 outcomes. Support programs could target those at highest risk (e.g., history of prior risk behaviors, family history of obesity, those surrendering life schedules that included regular exercise – think of all the freshmen who played on sports teams or danced or cheered or played recreational sports leagues back in high school). Many of these freshmen are giving up the regular activities that kept them exercising regularly in high school, but may maintain or even increase their caloric intake in college despite decreasing their caloric output.

Support programs should, of course, keep utilizing web sites and resident assistants, but programs could also utilize text messages to provide prompts/encouragement at higher risk times (right before meal times or during finals week) or when students may have indicated they would potentially exercise or engage in other healthy behaviors. College students today are far more likely to text than e-mail – a significant communication shift in just the past five years. Texting could also be used to facilitate prospective data collection on student's actual behaviors (knowing that a common criticism of health data is that it relies on retrospective self-report data and that it covers domains where negative behaviors are likely to be underreported). Text messages could provide a prompt and web-link for a student to click on and quickly provide confidential or anonymous data on their diet, exercise, and other health related behaviors that day. Further, social networking (e.g., Facebook) could be harnessed to support a public accountability for decisions made regarding exercise, diet, etc. Social networking environments can provide a strong source of social prompts and reinforcement, which would perhaps increase feelings of self-efficacy related to influencing their own health and increasing feelings of group belongingness and connectedness on healthy factors. It is easy to imagine the "fitness buddies" in the University of Southern California program extending into the use of texting and social networking to support their objectives for and basic methods of communicating with freshmen.

Another goal would be to continually evaluate existing programs for both their impact and their acceptability/usability (social validity issue) for students. Future research could statistically evaluate some of the programs reviewed.

University professional should also remember that some of the freshman 15 is normal weight gain, especially for women. Normal biological maturation is at work and interacts with females aging past the bodies glorified in the media (the 16-19 year old body with relatively low body fat percentages). This has implications for 1) emphasizing education/ acceptance of normal weight gain for women in a healthy weight range, 2) emphasizing more appropriate goals for weight loss for women in an unhealthy weight range, and 3) for assessing the impact of education programs (i.e., a dependent variable should not be weight

loss per se but should assess movement towards or maintenance of healthy weight ranges). Students can probably teach administrators a LOT about what programs they would participate in and what factors encourage/discourage participation. The acceptability/usability of any program adopted by the university needs continual assessment so that officials can keep up with shifts such as that seen with how email use has plummeted and text messaging/social networking skyrocketed in a few short years before 2010.

Regardless of the specific avenues chosen by each university, all programs should consider following the example set by South Carolina with (1) creation of a student community promoting a healthy lifestyle; (2) programs and peer groups created to help students who need to be part of an intervention committee; (3) education and outreach into the university community; (4) a professional counseling center; (5) an oversight committee that creates program unity. To effectively help students with The Freshman 15 health issues, universities need an effective communication strategy. Web presences may be a place to start, but all health communication strategies require some degree of interpersonal contact and outreach if universities are going to reach the students who most need their help.

## References

- Ball-Rokeach SJ, Wilkin HA. Ethnic differences in health information-seeking behavior: Methodological and applied issues." Communication Research Reports. 2009; 26(1):22-29.
- Butler SM, Black DR, Blue CL, Gretebeck RJ. Change in diet, physical activity, and body weight in female college freshman. *Am J Health Behavior*. 2004;28(1):24-32.
- Gaziano JM. Fifth phase of the epidemiologic transition: The age of obesity and inactivity. *JAMA*. 2009;*303*(3):235-241.
- Jung T, Heald GR. The effects of discriminate message interventions on behavioral intentions to engage in physical activities. *J Am College Health.* 2009:57(5):527-534.
- Krcmar M, Giles S, Helme D. Understanding the process: How mediated and peer norms affect young women's body esteem. *Communication Quarterly*. 2008;56(2):111-130.
- Kreps GL. Qualitative inquiry and the future of health communication research. *Qualitative Research Reports in Communication*. 2008;9(1):2-12.
- Levitsky A, Halbmaier CA, Mrdjenovic G. The freshman weight gain: a model for the study of the epidemic of obesity. *Int J Obesity*. 2004;28:1435-1442.
- Mills C, Heyworth J, Rosenwax L, Carr S, Rosenberg M. Factors associated with the academic success of first year health science students." *Advances in Health Sciences Education*. 209;14, pp. 205-217.
- Pedersen PJ, Ketcham PL. Exploring the climate for overweight and obese students in a student health setting. *J Am College Health*. 2009;57(4):465-469.
- Rains SA. Seeking health information in the information age: The role of internet selfefficacy. *Western J of Communication*. 2008;72:1-18.
- Real Age. Nutrition boosters for fruits and vegetables: Are you getting all the nutrients your produce has to give? 2009. Available at http://www.realage.com/eat-smart/food-and-nutrition/nutrition-boosters-for-fruits-and-veggies. Accessed 2-3-2010.
- Reznik RM, Roloff ME. The role of legitimacy and communal orientation on the use of

health influence strategies. Communication Research Reports. 2009;26(2):167-173.

- Rickman JC, Barnett DM, Bruhn CM. Nutrition comparison of fresh, frozen fruits, and canned fruits and vegetables. Part 1. Vitamins C and B and phenolic compounds. J Science Food Ag. 2007;87:930-944.
- Steele, JP, Fullagar CJ. Facilitators and outcomes of student engagement in a college setting. *J Psy.* 2009;143(1):5-27.
- Taliaferro LA, Rienzo BA, Pigg RM Jr, Miller MD, Dodd V.J. Associations between physical activity and reduced rates of hopelessness, depression, and suicidal behavior among college students. *J Am College Health*. 2009;57(4):427-434.
- The Office of Disease Prevention and Health Promotion. Healthy People 2010: Objectives for Improving Health. 2009;Chapter 11. Retrieved 2-10-10 from: http://www.healthypeople.gov/
- The American College Health Association. American College Health Association-National College Health Assessment Spring 2008 reference group data report (abridged). *J Am College Health*. 2009;57:477-488.
- Thomson DM. Big food and the body politics of personal responsibility. *Southern Communication J.* 2009;74(1):2-17.
- Trockel MT, Barnes MD, Egget DL. Health-Related Variables and Academic Performance Among First-Year College Students: Implications for Sleep and Other Behaviors." J Am College Health. 200;49:125-130.
- Wengreen, HJ, Moncur C. Change in diet, physical activity, and body weight among young-adults during the transition from high school to college. *Nutrition J.* 2009;8(32).
  Available at: http://www.nutritionj.com/content/8/1/32. Accessed 1-21-10.
- Wider, J. The Doctor's Complete College Girls' Health Guide: From Sex to Drugs to Freshman 15. New York: Bantam Books; 2006.

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