

**University of Tennessee: Student Perception of the Influenza Immunization**  
Research conducted on behalf of the Student Health Center  
Advertising and Public Relations Research Team

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## **I. Executive Summary**

The University of Tennessee Knoxville's on-campus Student Health Center publicizes the opportunity for students to receive the influenza immunization for \$25 during the flu season. Despite on-campus convenience, many students are still deterred from receiving the shot. Advertising and Public Relations research students used survey research to sample more than 200 students in six major colleges across the University of Tennessee's campus. The research team gathered relevant information about student perceptions of a healthy lifestyle, flu experience (diagnosis and shot), motivations and deterrence from the flu shot, and general knowledge of the Student Health Center. Results show that 27.5% of student respondents received a flu shot in the past year; key deterrents from receiving the immunization for both genders are inconvenience and lack of experience with the virus. The survey results indicate relationships among class year in school and the influences on individual health. Through these findings, the research team developed recommendations for the Student Health Center in regards to advertising campaigns, media relations, and specific targeting associated with year in school.

## **II. Introduction**

Because of the close living-quarters dorms present and the number of people they come in contact with, college students are at high risk for the flu. In 2009, the American College Health Association (ACHA) conducted a Pandemic Influenza Surveillance project to investigate influenza's presence on college campuses. The project defined the influenza-like illness as a case involving an individual with a fever equal to or above 100 degrees Fahrenheit with a cough and/or sore throat, in the absence of another diagnosis. Of the ten regions across the United

States, the Southwest's region reported 23,526 of the total 95,588 influenza-like illness cases—the greatest number of cases of all ten regions. Of the participants, 55% were female and 45% were male. The age group of 17 to 24 encompasses 91% of the cases.

Many college students, in spite of these factors and the H1N1 scare of 2009, continue to refuse the influenza vaccination. With college students at such high risk, why do they neglect to protect themselves and others? The purpose of the research is to identify what motivates or deters students from receiving a flu shot, regarding terms of year in school, gender and general knowledge of the Student Health Center on campus. The research was conducted to determine how many students have had the influenza virus in the past, and whether this experience motivates or deters them from receiving the flu shot. Surveys were distributed across the University of Tennessee Knoxville's campus in classroom settings.

### **III. Methodology**

A survey containing 13 questions was distributed to 50 students in various student organizations across campus as a pretest. While the full intent of the survey was not disclosed, the informed consent paragraph indicated the survey results would be used “to learn more about student health and students' views on health at the University of Tennessee.” Through these responses, appropriate multiple choice questions were developed to replace some of the open-ended questions.

The final survey was comprised of 15 questions, a mix of nominal, interval and multiple choice (Appendix page 11). The surveys were distributed to six different colleges: Agricultural Sciences and Natural Resources, Architecture and Design, Communication and Information,

Education, Health, and Human Sciences, Engineering and Nursing. The general objective was to obtain approximately 30 surveys from each college to represent UT's population.

#### **IV. Results**

A total of 214 students completed the survey in the classroom setting. Of the 214 responses, 44% were male and 56% were female. Results indicate that only 27.5% of those surveyed received a flu shot in the past year. Males were more likely to receive a flu shot than females: 30.5% of males compared to 25.2% of females. While the research shows gender may influence the decision to receive a flu shot, there was no observed trend among the different colleges and its students' decisions to receive flu shots.

Using the American College Health Association's definition of the influenza virus in the survey question, 61.2% of students surveyed responded that they had the flu in the past. Of this 61.2%, approximately 30.5% have received the flu shot in the past year. Conversely, of the 38.8% who have not had the flu, only 22.9% have received the flu shot in the past year (Appendix page 8, Figure A). These statistics indicate that a large portion of the students sampled shy away from receiving the flu shot. Students deter from the immunization for a variety of reasons (Appendix page 8, Figure B). The most common reason for both genders is inconvenience (45.56% of males and 26.42% of females) and no experience with the virus (approximately 20% for both genders). Less popular reasons students did not receive the flu shot are negative previous experiences with the shot (11.22% of respondents who did not receive the flu shot this year) and fear of needles (13.78% of respondents who did not receive the flu shot this year).

While the deterrence among genders is similar, the most popular motivations varied. Of female respondents, 51% said their motivation to receive the shot is to avoid the flu, making this the top motivation among female students (Appendix page 9, Figure C). About 37% of males shared this motivation, but the most frequent response among males is parental motivation (40%) (Appendix page 9, Figure D). These results suggest that males and females have different top motivations to receive the flu shot. Less popular motivations shared among the respondents who received the flu shot this year are medical conditions that require the flu shot (about 6.5% for both genders) and if their place of work or school required them to receive the flu shot (under 14% for both genders).

A statistically significant correlation showed as year in school increases, medical influences on health decisions increase. Of the students who received the flu shot, 66.1% were influenced by medical professionals and research studies (Appendix page 10, Figure E). Research also indicates that work and school has an influence on receiving the flu shot; 45.8% of those who received the flu shot were influenced by work and school. Another statistically significant correlation in the research shows that parental influence declines as class year increases; parental influence to receive the flu shot varied from 82.8% in sophomores to 72.5% in seniors (Appendix page 10, Figure F).

The definition of health varies with age, so even while many students consider health very important and themselves very healthy, 75% still have not received a flu shot in the past year. While this information seems contradictory, pretesting indicated college students base

health on factors such as diet, exercise and sleep. This skewed definition fails to include preventative measures, such as flu shots, annual doctor visits and vaccinations.

Despite the Student Health Center's publicity, 80% of students reported they had not seen advertising for the health center. In terms of students who have not received the flu shot, approximately 81.3% have seen no advertising for the Student Health Center. However, results indicate that 75% of participants are familiar with services offered at the Student Health Center.

## **V. Recommendations**

Because the most common deterrence among all surveyed students is inconvenience, having the flu shot more readily available could possibly increase the number of students receiving the flu shot. A few ways to make receiving the flu shot more convenient are having it available on multiple days, multiple locations (perhaps in the University Center or in dorm lobbies), and flexible times.

Motivations among genders varied, so it is possible to use the different motivations to reach females and males. The top reason for females to receive the flu shot is to avoid the flu. If the Student Health Center appeals to the rationale of female students, highlighting why it is important to avoid the flu, it is likely that more female students will receive the flu shot. The top reason males receive the flu shot is because of parental influence. If the Student Health Center found a way to reach the parents of male students, it is possible that more male students will receive the flu shot. One method for parental outreach is through the UT's Parents Association, specifically through their weekly emails.

The research also showed a shift in health motivations over time. Health decisions of upperclassmen are more influenced by the opinions of medical professionals. If upperclassmen have a medical professional telling them the importance of receiving a flu shot, they may be more likely to receive a flu shot. On the other hand, parents are the major influencer of underclassmen's health decisions. (\*The sample size of freshmen was small, n=8.)

Although students are aware of the Student Health Center and some of its services, advertising awareness is low. If the Student Health Center wanted to raise awareness around campus for its events, it could possibly contact the School of Advertising and Public Relations and ask for participation from its campaigns class, where students organize a campaign. Student campaigns could augment awareness about the "Boo to the Flu" event. Another way to potentially raise awareness of the "Boo to the Flu" event is through social media, such as Twitter and Facebook. The Student Health Center may also consider contacting UT's Office of Communication and Marketing for assistance.

### IV. Appendix

Figure A.

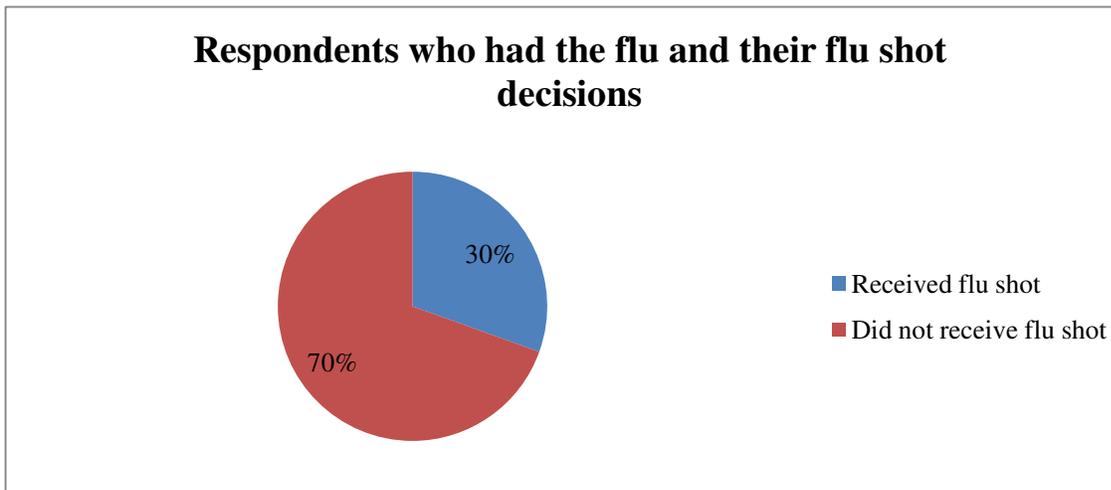


Figure B.

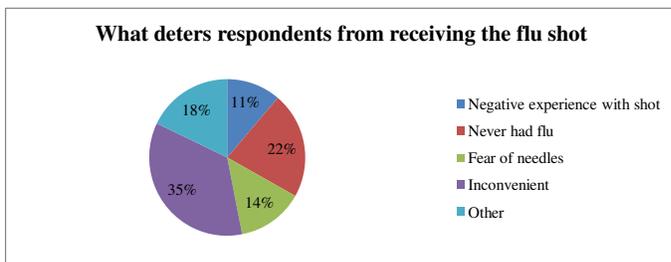


Figure C.

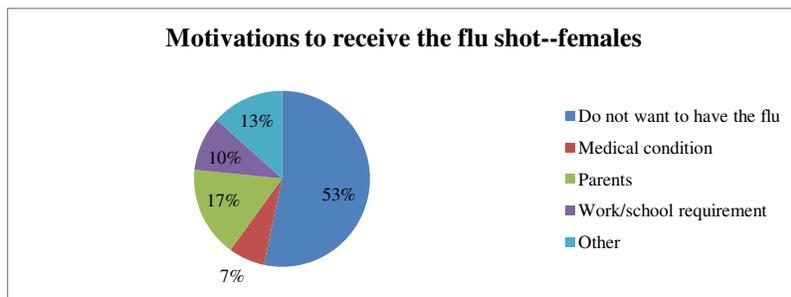


Figure D.

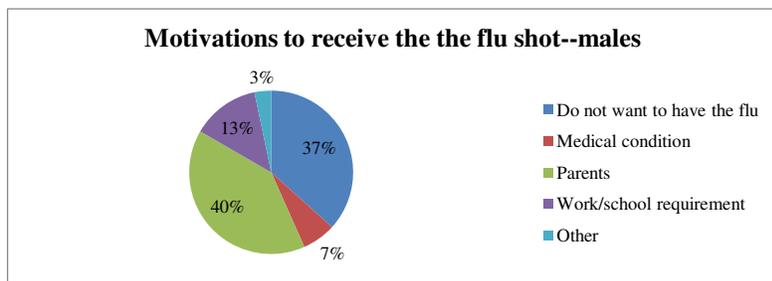


Figure E.

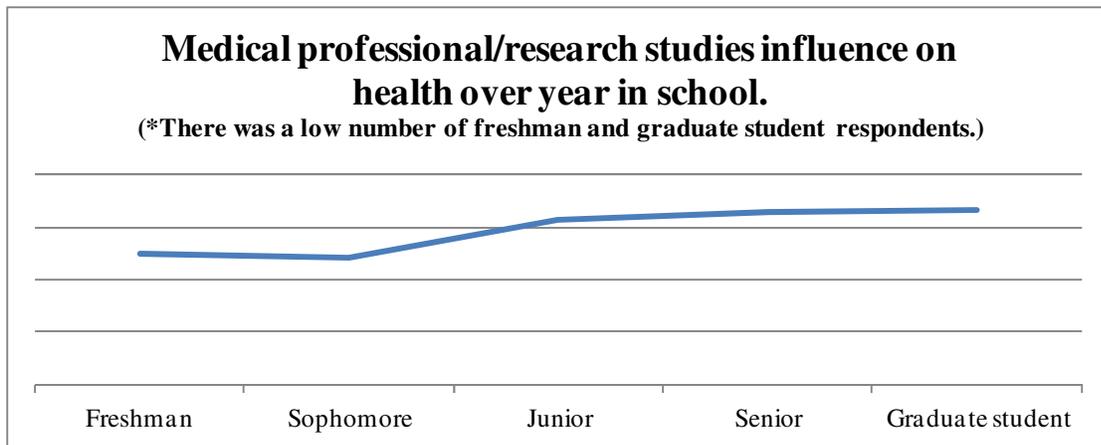
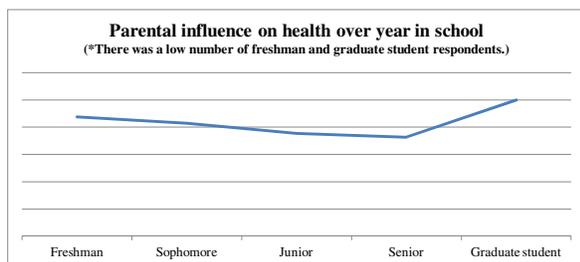


Figure F.





## Final Survey:

**We are conducting an Advertising and Public Relations study on behalf of the University's Student Health Center to learn more about student health and students' views on health at the University of Tennessee. Please help us by answering the following questions as best as apply to you.**

1. What is your gender?
 

	Male (n = 95)	Female (n = 119)
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2. What class year are you?
 

Freshmen	(n = 8)
Sophomore	(n = 58)
Junior	(n = 65)
Senior/Fifth Year	(n = 80)
Graduate	(n = 3)
3. Which college are you affiliated with?
 

Arts and Sciences (n = 57)	Communication and Information (n = 64)
Agricultural Sciences and Natural Resources (n = 22)	Education, Health, and Human Sciences (n = 16)
Architecture and Design (n = 5)	Engineering (n = 18)
Business Administration (n = 29)	Nursing (n = 3)
4. On a scale of 1-5, with 1 being not at all important and 5 being extremely important, how important is health to you?
 

Not at all Important	Slightly Important	Neutral	Very Important	Extremely Important
1	2	3	4	5
(Mean = 4.21)				
5. On a scale of 1-5, with 1 being not at all healthy and 5 being extremely healthy, how healthy do you consider yourself?
 

Not at all Healthy	Slightly Healthy	Neutral	Very Healthy	Extremely Healthy
1	2	3	4	5
(Mean = 3.55)				
6. Who influences your health decisions? Circle **all** that apply.
  - Friends (n = 150)
  - Medical Professionals/Research Studies (n = 128)
  - Parents (n = 165)
  - School/Work (n = 88)
  - Other (n = 59)
7. Which factors influence your health decisions? Circle **all** that apply.
  - Convenience (n = 164)
  - Food/Exercise (n = 173)
  - Media Images (n = 55)
  - Time (n = 150)
  - Other (n = 27)
8. Influenza (the flu) is a contagious respiratory illness caused by influenza viruses. Have you ever had the flu?
 

Yes (n = 131)	No (n = 83)
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9. In the past year, have you received a flu shot? If yes, continue on to question 10. **If no, skip to question 12.**  
 Yes (n = 59) No (n = 155)

10. If you have received a flu shot, where did you receive it? Circle **all** that apply.

- Doctor's Office (n = 34)
- Student Health Center (n = 7)
- Walk-in Clinic (n = 27)
- Hospital (n = 4)
- Other (n = 7)

11. What motivated you to receive the flu shot? Circle only **one** response.

- Do not want to have the flu and/or illness (n = 27)
- Medical Condition (n = 4)
- Parents (n = 17)
- Work/School Requirement (n = 7)
- Other (n = 1)

12. What deters you from receiving a flu shot? Circle only **one** response.

- Felt flu-like symptoms after shot (n = 22)
- Never had the flu (n = 43)
- Shots/Fear of Needles (n = 27)
- Time/Inconvenient (n = 69)
- Other (n = 35)

13. Name 3 services that the Student Health Center offers that you are aware of.

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(131 respondents correctly named services offered.)

14. Provide the location of the Student Health Center.

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(166 respondents knew the location of the Student Health Center.)

15. What are some past advertisements/events you have seen/heard of for the Student Health Center?

(43 respondents saw/heard about the Student Health Centers advertisements/events.)