

Addressing the Challenges of Influenza Vaccination on US College Campuses

A Report by the National Foundation for Infectious Diseases

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**National
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Overview

According to the Centers for Disease Control and Prevention (CDC), annual vaccination is the best way to reduce the chances that an individual will get influenza (flu). Yet on US college campuses, flu vaccination rates remain strikingly low, hovering between eight and 39 percent,^{1, 2, 3, 4} and falling dramatically short of the 70 percent Healthy People 2020 target recommendation⁵ as well as the American College Health Association (ACHA) Healthy Campus 2020 target goal of approximately 50 percent.⁶

Motivating college students to get an annual flu vaccination remains a public health challenge; therefore, the National Foundation for Infectious Diseases (NFID) convened a College Influenza Stakeholder Summit that included subject matter experts from academia, student organizations, professional medical associations, patient advocacy organizations, and industry (see page 8 for a complete list of participating organizations) to better understand the causes behind this vaccination gap. By bringing together these experts, the Summit sought to better understand the key barriers that prevent college students from getting an annual flu vaccine, as well as to identify strategies which would help students both recognize their risk and motivate them to get vaccinated.

“This discussion is so important because we truly believe that we can do more together than alone. By combining the unique expertise of various stakeholders, we can build a future where college students recognize the risk of influenza, get vaccinated annually, and build life-long habits to protect their health.”

— William Schaffner, MD,
Medical Director,
National Foundation
for Infectious Diseases

Influenza Vaccination Rates on College Campuses Fall Short of US Public Health Goals

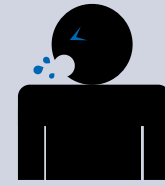
Seasonal flu is a serious, highly-contagious respiratory illness caused by influenza viruses. In the US, approximately five to 20 percent of individuals get the flu each year, more than 200,000 are hospitalized, and tens of thousands die from flu-related complications.⁷

On college campuses, influenza viruses are known to circulate rapidly, through constant exposure in close quarters like common living spaces, classrooms, shared restrooms, and through social activities. On average, college students who get the flu experience up to eight or more days of illness along with increased rates of healthcare use, school absenteeism, and impaired academic performance.⁸

CDC recommends annual vaccination for all individuals six months and older as the best way to reduce the chance of contracting the flu.⁹ Despite these recommendations, rates among college students remain low, hovering between 8 and 39 percent.^{1,2,3,4} As the collection of baseline data in the collegiate environment is largely undocumented and/or self-reported, vaccination rates may indeed be lower in this highly vulnerable population.

Influenza vaccination programs on college and university campuses have been widely implemented, but with varying levels of participation and success. Thus, the outstanding question remains: **Why is it so difficult to motivate college students to get vaccinated?**

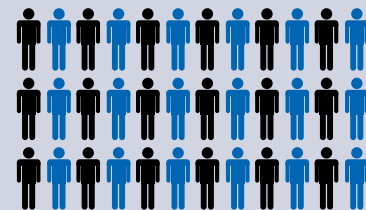
Each Year in the US



5 to 20%
get the flu¹



200,000+
are hospitalized¹



Tens of thousands
die from flu-related complications¹



On average, college students who get the flu experience illness of eight days or more²

1. Centers for Disease Control and Prevention. Seasonal Influenza Q&A. www.cdc.gov/flu/about/qa/disease.htm. Accessed April 27, 2016

2. Nichol, KL, Tummers K, Hoyer-Leitzel A, et al. Modeling Seasonal Influenza Outbreak in a Closed College Campus: Impact of Pre-Season Vaccination, In-Season Vaccination and Holidays/Breaks. PLoS ONE, 5(3), e9548. <http://doi.org/10.1371/journal.pone.0009548>

Challenges with College Influenza Vaccination Efforts

A key goal of the Summit was to secure a better understanding of the underlying challenges and gaps related to flu prevention in this target audience. While the challenges that stakeholders face in increasing awareness of flu and driving vaccination uptake are diverse, several themes did emerge, that if addressed, could help close the vaccination gap.

- **Challenge: Healthy students don't worry about getting the flu.** College students are seemingly unconcerned about the flu. There appears to be a conflicted belief about their own risk versus the risks to others — the “*it won't happen to me*” mentality. Students acknowledged that flu prevention is often cited for the very young or very old, but many in their late teens and early twenties believe that “*they'll never get sick.*”
- **Challenge: College students are transitioning to being responsible for managing their own health.** Several stakeholders noted that many college students are transitioning from an environment where a parent or guardian coordinated all aspects of their healthcare. Without a parental or other trusted figure urging the student to get vaccinated, they likely won't.
- **Challenge: Students have varying levels of awareness/attitudes toward the flu vaccine, side effects, and overall effectiveness.** Flu education and comprehension varies drastically based on college major, physical location (on-campus/off-campus resident), and college-targeted promotional efforts before and during flu season. For example, student representatives at the Summit revealed that there is substantial dialogue about the flu in schools of pharmacy, where students are required to get an annual flu vaccine. On the other hand, undergraduate students in non-health fields had little to no awareness about flu prevention efforts on their campuses. Importantly, stakeholders noted that misconceptions about the side effects of the flu vaccine can perpetuate fear and create “shot aversion.” Various accounts were raised where students reported reluctance to getting vaccinated due to concerns that the vaccine would either cause illness or be ineffective at preventing flu.
- **Challenge: Busy schedules and competing priorities make it difficult to capture student attention.** Students are inundated with information ranging from academic requirements to on-campus events, and have a number of extra-curricular commitments. With busy schedules and competing priorities, students can be de-sensitized to health communication materials or awareness efforts that seemingly have little relevance to their daily routine.



■ **Challenge: College health services and on-campus flu prevention efforts vary from school to school.**

Flu prevention activities fluctuate across different universities due, in large part, to a disparity in resources. Many larger universities have well-established flu vaccination programs with resulting stronger vaccination uptake among students, while smaller schools with more limited resources experience varying degrees of success. Large schools with robust on-campus health services, staff, and funding can remove barriers that students may face in protecting themselves against flu (e.g., no- or low-cost vaccines, vaccine clinics in multiple locations around campus, incentives). Smaller universities, including community colleges, may not be able to provide such a wide array of services or engage with student ambassadors with whom they can collaborate. These schools often have one staff nurse who may only provide acute care and cannot provide flu vaccines for no- or low cost.

■ **Challenge: Uncertainty about, or limited insurance coverage, bars students from receiving preventive care.**

Students who are covered by insurance plans that do not offer preventive services outside of their network or in other states often face difficulty accessing flu vaccines. Others find the processes for reviewing benefits or submitting for reimbursement cumbersome. Because college health service staff typically have limited means of guiding students to navigate their individual insurance plans, lower vaccination rates may ensue.

■ **Challenge: The definition of “college student” is quite broad, encompassing those who span multiple ages, fields of study, and lifestyles, which may lead to varying health behaviors.** College students today do not conform to traditional age parameters. Although many fall within the 18–24-year-old age range, others are older. Depending on the school environment, students also have various living situations, with some residing in on-campus dormitories and others commuting from off-campus. This diversity raises challenges when designing tactics to reach target audiences.

Recommendations to Close the College Vaccination Gap

There is no one-size-fits-all solution to increasing flu vaccination uptake among college students: To be effective, interventions must emerge from specific lessons learned from college students themselves, rather than by extrapolating broad-brush approaches deemed effective in other target populations. Yet, there are several elements that can be undertaken at a national level to help inform regional and local implementation activities. Taking into account the key challenges, best practices, and college life realities shared during the Summit, the following emerged as key recommendations to help increase flu vaccination among college students:

- **Recommendation: Conduct research to better understand and quantify vaccination gaps, as well as student motivators and influencers.** Stakeholders acknowledged the lack of reliable current research that accurately quantifies college student flu vaccination rates and barriers to vaccination. Such research would assist public health officials, healthcare professionals, and individual colleges/universities in targeting their efforts. Additionally, stakeholders acknowledged that health decisions among college students are “influenced” by a variety of factors and individuals. Athletes, healthcare professionals, professors, peers, and parents (primarily mothers) were all cited in having influence over student behaviors; however, little research exists to quantify the most direct leverage points. Better quantification of key motivators and influencers of this target audience — both on a national and local level — could assist in allowing officials to more accurately tailor messaging, content, and programming to encourage behavior change. Additionally, research on the impact of flu on absenteeism has helped motivate employers to sponsor flu vaccine programs. Similar research documenting the disruption of the learning experience may help motivate colleges to be more active in promoting the flu vaccine.
- **Recommendation: Build solidarity among college, professional, and student organizations to highlight the importance of flu prevention.** Elevating the dialogue about flu involves collaboration between college leadership, healthcare professionals, and students. Atypical partnerships and program co-creation that prioritize and incentivize the issue of flu prevention for all collaborators can assist in expanding the reach of important health messages to students, activating a diverse set of ambassadors who can champion the issue and make annual vaccination a basic tenet of healthy living.

■ **Recommendation: Facilitate best practice sharing and encourage uptake of existing flu education/vaccination resources.** Moving into future flu seasons, stakeholders noted that streamlining resources is critical. Significant tools and resources for raising awareness about the importance of flu prevention and driving vaccination, many duplicative, already exist through national organizations such as the American Pharmacists Association, CDC, and NFID. In order to optimize efficiency, there must be continued sharing of best practices, especially turnkey templates, actionable program ideas, and improved dissemination of resources through established distribution channels and networks.

■ **Recommendation: Instill annual flu vaccination habit before the transition to college.** Stakeholders noted that there is currently a missed opportunity to more purposefully communicate key messages about flu prevention as part of college readiness information and healthcare exams. These opportunities provide direct peer/parent engagement and allow a healthcare professional, or other trusted advisor, to:

- 1) Discuss the importance of vaccination, to help protect individuals and the community
- 2) Debunk myths about the flu vaccine
- 3) Enforce messages about the importance of a healthy lifestyle while at college

■ **Recommendation: Make flu vaccination accessible for college health services and students.** Schools that experience the most success with flu vaccination are those able to offer the vaccine to students free of charge. However, this is not standard operating procedure. Many colleges and universities can only offer limited support for both vaccine coverage and in helping students navigate individual insurance coverage plans to recoup out-of-pocket expenses. Removing barriers related to supplying health services with adequate quantities of flu vaccine, as well as fostering health literacy to empower students to better leverage existing insurance coverage for flu vaccines remain significant unmet needs.



Key Tenets of Successful Influenza Prevention Initiatives

Many college and university campuses currently have, and will continue to implement their own flu vaccination clinics and programs. As such, the following were noted as tried and true principles to consider in the design of on-campus vaccination programs:

Collaborate with the student body

Promotional efforts should be informed by students.

Involving students in the development and dissemination of campaign communications helps ensure relevance and resonance. A network of student advisors is critical to help inform both message and channel (e.g., email vs. Snapchat). Also, and in an effort to incentivize participation, look for ways to have student involvement either count toward academic/community credit or resume building.

The University of Wisconsin-Madison student health services boasts robust communications to drive students to get vaccinated at flu clinics as well as to educate students about the risk of flu. A student-inclusive workgroup is charged with helping to conceptualize themes (e.g., “Boost Your Immunity”), assist in the design of creative materials, and advise on how best to disseminate those messages and materials on campus.

Communicate early and often with a simple call to action (e.g., #GetVaccinated to #FightFlu)

Sustained, frequent, and convenient communications to students prove to be the most impactful. Reminders are one of the most effective tools to making sure students receive vaccinations. Regardless of the most appropriate channel for the target student body (e.g., email or text message), early information about where to get flu vaccinations, clear directions, and regular reminders will help students keep vaccinations top-of-mind while they juggle their often over-loaded schedules.

Haverford College Student Health Services utilized an e-health technology text message platform that regularly reminded students to get their flu vaccine and communicated information about flu over an eight-week period. Text messages were linked to an online portal called “Prevent Haverflu” that contained personal stories and facts about flu. The regular, consistent communications and resources proved to be extremely effective in driving vaccination coverage to 50 percent of the student population.¹⁰

Utilize influencers

Identifying influencers with resonance and leveraging their impact on student behaviors are keys to driving action.

Star athletes, highly respected professors, healthcare professionals, parents/caregivers, and peers can all have direct influence on student health behaviors. Activating these influencers to champion the call-to-action should be considered when organizing flu prevention initiatives.

At Temple University, the Industry Pharmacists Organization, Eta Sigma Gamma, and the Student Health Services hosted a flu vaccine clinic with guest star Nerlens Noel of the Philadelphia 76ers. The NBA player proved a popular spokesperson advocating for vaccinations at the Pennsylvania-based school.

Be original

Incorporate a “WOW” factor to capture students’ attention. What intrigues students may vary from campus to campus, but simple incentives and/or a competitive spirit can go a long way toward achieving results. Consider elements such as:

- Competition among student groups within or outside of universities (e.g., school rivalries, nurses vs. doctors vs. pharmacists) to get highest number of flu shots for meaningful prizes (e.g., grants, VIP tickets, etc.)
- Food
- Giveaways

By channeling students’ competitive drive, the University of Minnesota and Vanderbilt University have successfully organized annual mass vaccination events. In 2008, the University of Minnesota charged the student body with helping them break the Guinness World Record for the highest number of vaccinations in one day, generating an impressive 11,538 flu vaccines delivered. Vanderbilt University organizes mass flu events called “Flulapalooza” that aims to top previous records for getting the most number of people vaccinated in an eight-hour period. In Michigan, the state department of health teamed up with local colleges and universities to challenge students to get vaccinated by encouraging friendly school rivalries and awarding prizes and recognition to the winning schools.

Appeal to the desire to “give back”

Include components that allow students to “give back” to society to appeal to millennial and Generation Z sensibilities.

By emphasizing that flu vaccine helps prevent the spread of flu to others, campaigns can leverage the sense of community and altruism, as well as motivate students to get vaccinated.

Make it easy to get vaccinated

Offer flu vaccines at multiple convenient locations across campus and in short, concentrated time periods. Providing vaccination clinics in convenient locations across campus where students visit frequently (e.g., dormitories, student centers, libraries) helps eliminate barriers like distance, weather, or limited transportation options that prevent students from getting vaccinated. Additionally, galvanizing momentum to push for everyone to get vaccinated in a dedicated week or two will avoid students from delaying action and the “I’ll do it later” mentality.

Summary

While often preventable, flu can pose significant risks for vulnerable populations causing disruptions at work or school and in some cases, fatal complications.

College students, living in high-touch areas and juggling overloaded schedules, are largely unaware of their vulnerability to the illness. They often overlook the importance of, or face barriers to, taking preventive measures such as an annual flu vaccination.

A uniform solution to motivate students and drive flu vaccination does not exist. However, with the collective efforts of academic, health, advocacy, industry, and student leaders to better understand and address the unique challenges college students face, immunization goals can be met.

While gaps certainly remain, past programs, existing resources, innovative partnerships, and improved research can offer best practices to more effectively meet the health needs of students on individual campuses.

Students who get vaccinated against flu while in college are more likely to continue getting vaccinated after they leave college. By continuing to raise awareness about flu and eliminating barriers to accessing vaccines, stakeholders can empower college students to build healthy habits for a lifetime.

Participating Organizations

Representatives from the following organizations participated in the 2016 College Influenza Stakeholder Summit, which served as the basis for this report.

- American College Health Association
- American Immunization Registry Association
- American Pharmacists Association
- Association of Immunization Managers
- Auburn University, Student National Pharmaceutical Association
- Families Fighting Flu
- Haverford College, Student Health Services
- National Foundation for Infectious Diseases
- Society for Adolescent Health and Medicine
- Temple University, Student Health Services
- Temple University, Industry Pharmacists Organization
- Texas A&M University, Minority Association of Pre-Health and Pre-Medical Students
- University of Florida, Health and Education through Research, Outreach, Empowerment and Service
- University of Michigan

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