

## Promoting Wellness: An Influenza Vaccination Initiative for University Health

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### ABSTRACT

*The annual influenza season in the United States poses a considerable public health burden, leading to numerous deaths, hospitalizations, and substantial economic costs. Despite the preventable nature of influenza, vaccination rates remain below the target, with only 46.9% of adults immunized during the 2022-23 season. This study examines the effectiveness of a comprehensive influenza vaccination initiative implemented at the West Texas A&M University to address the specific challenges of a densely populated campus environment.*

*A campus wide influenza immunization initiative that began in 2018, has demonstrated positive outcomes, with increasing vaccination numbers each year. The study utilized a survey to evaluate the experiences and motivations of faculty and staff who participated in the fall of 2023. Convenience emerged as a key factor influencing vaccination decisions, with over 88% of participants cited it as a major consideration. The survey also revealed the initiative's success in attracting individuals who might not have actively sought vaccination elsewhere, emphasizing the importance of on-campus accessibility.*

*Nursing faculty wish to continue to promote on campus wellness and so to further enhance vaccination rates, the study recommends robust marketing strategies, follow-up conversations with vaccine decliners, additional vaccination dates, easily accessible drive-through clinics, and faculty-led wellness events.*

### Keywords

Convenience factor, Influenza vaccination, Wellness, Community.

### Introduction

Typically beginning in October, the annual influenza season in the United States (U.S.) causes a significant public health burden. This burden results in thousands of deaths and hospitalizations with millions of dollars being spent on medical care and missed workdays. According to the Centers for Disease Control and Prevention [CDC] [1], preliminary numbers for the 2022-23 season indicate influenza-related illness affected at least 31 million people nationally, contributing to 14 million visits with healthcare providers, 360,000 hospital admissions, and 21,000 deaths [1]. These figures are concerning considering the preventable nature of influenza. While the target rate for immunization among adults is 70% in the U.S. [2], the reported vaccination rate for 2022-23 was

significantly lower at 46.9% [3].

Influenza transmission can occur as early as one day before, and up to seven days after the onset of flu symptoms [4]. Because people can infect others before they are aware of their own illness, determining settings where specific populations are at increased risk of transmission is crucial. College campuses are considered a setting where ensuring health safety is vital to decrease the spread of communicable diseases. This is due to the nature of densely populated environments, including crowded classrooms, communal dining areas, and public restrooms [5].

The West Texas A&M Nursing Health and Wellness Clinic introduced a campus-wide influenza immunization initiative beginning in the fall of 2018. This initiative was in response to the high prevalence of illness noted on our campus during

the fall 2017-spring 2018 flu season. The initiative was well received and the number of vaccinations given has increased in each of the subsequent years. Additionally, faculty and staff often remark favorably about receiving their vaccination when they see nursing faculty on campus throughout the year and inquire about continuation of the immunization initiative.

## Review of Literature

A global trend exists that includes marketing influenza vaccines for only those populations at highest risk, including the elderly, small children, and those with predisposing health conditions [6]. However, the constantly evolving nature of influenza viruses require continuous global monitoring and frequent reformulation of the vaccine for all populations. Among the marketing strategies utilized to encourage all populations to get vaccinated include text messaging, email [7] and social media, flyers, announcements, fact sheets, and word of mouth [8].

Inconvenience is reported to be the major reason individuals choose not to be vaccinated and must be considered when promoting vaccinations. In addition to inconvenience, other reasons for refusal have been identified. These include lack of time, fear of needles, cost, and perceived allergies [9-11]. Another reason conveyed was related to lack of confidence in the vaccine's ability to prevent flu infection [11].

Approximately 15.5% of adults in 2018 received their flu vaccine in their workplaces [12]. Offering workplace vaccine clinics through innovative delivery processes creates opportunities for increased awareness and accessibility. Vaccine delivery enhances access to vaccine services and increases percentages of the immunized population [13]. The accessibility of the influenza vaccine is a fundamental facilitator in achieving a high vaccination rate [14].

## Methodology

Informal conversations around the university revealed that many faculty and staff relied on the campus wide flu vaccination initiative to receive their immunization. As such, the authors decided to evaluate the outcomes of the fall 2023 immunization initiative. A brief eight-item survey was developed to be administered to participants immediately after receiving their immunization. After development of our survey, three faculty members, not associated with the initiative, were asked to review, and provide suggestions for improvements. Two minor corrections were made to the survey. Institutional review board (IRB) approval was sought and received prior to the start of our initiative. One month prior to the initiative dates, emails were sent to all faculty and staff on campus informing them of the dates and times of the initiative. The nursing department marketing representative created a sign-up poll for all university departments to select preferred dates and times for the delivery of the vaccines. All recipients of the vaccine were offered an opportunity to complete the survey. An informed consent was provided to each participant involved in the study.

Participants included faculty, staff, and any family members who were included on the university's employee health insurance

plan. Three groups of senior level nursing students were paired with nursing faculty to distribute the vaccines for the initiative. Nursing students and faculty were equipped with informed consents, surveys, administration supplies, and the influenza vaccine. Nursing students provided education through a CDC vaccine information sheet (VIS) and nursing faculty oversaw the administration process.

## Findings

During our 2023 flu initiative, we administered 236 influenza vaccinations to campus faculty and staff. Among those vaccinated, the survey was completed by 176 participants. The surveys revealed 97 of the total participants (55.1%) returned to be vaccinated through our initiative from the previous year. Moreover, 50.5% of the returning survey respondents indicated they would not have actively sought vaccination from other locations had it not been available on campus during our 2022 initiative. In fact, one recipient reported, "I might not ever get the shot if you don't bring it to me." Furthermore, 156 survey participants (88.6%) indicated convenience played a major factor (rating of 7 or higher on a 1-10 scale) in their decision to receive the seasonal influenza vaccine. Likewise, 149 survey participants (82.9%) revealed receiving an influenza vaccine was important to them (rating of 7 or higher on a 1-10 scale).

According to the survey, the initiative efforts resulted in 29 new participants who were not vaccinated in the previous year. When given the opportunity to share their reasons for not receiving the vaccine, 12 individuals (41.3%) indicated being too busy or forgetful. Other less common reasons included illness, vaccination not a priority, off-campus on vaccination day, uninsured, "too lazy," and fear of needles.

During the 2023 fall semester, there were 814 full-time faculty and staff employed by the university. The flu vaccine initiative resulted in providing immunization to 236 or 29% of the eligible population. The vaccination status of the remaining 71% is undetermined. After the initial attempt, nursing faculty were contacted by faculty and staff who had not received a vaccination, inquiring about the availability of remaining flu vaccines. A subsequent, smaller effort was made to administer immunizations to these individuals, and those numbers are included in the above findings.

Although not a direct finding from the survey, it was noted that nursing faculty were occasionally approached throughout the year by other faculty and staff across the campus inquiring about the flu shot initiative. They would also thank us for our efforts and sometimes ask about other health-related issues significant to them. Anecdotally, the flu shot initiative appears to have established an trusting relationship between nursing and the broader campus community.

## Discussion

The objective of this initiative was to vaccinate as many people as possible to reduce the overall burden of illness and missed work time on our campus. The survey was conducted to evaluate and

collect information about faculty and staff experiences. Through this evaluation process, we identified convenience as a known driving factor for this population. In fact, over 88% of participants revealed convenience as a major factor. This was not a new finding as previous years have identified convenience as an important consideration.

Moving forward, immunizing a higher number of faculty and staff, with the hope of achieving 70% participation, will be our goal. Given the information that our evaluation process has uncovered, improved advertising may be necessary to achieve this goal. With the aim of increasing the convenience factor, prolonged and flexible scheduling with frequent reminders will also be necessary. Additionally, preventative health education may be required to increase participation in the initiative. Zhou et al. [7] reported a significant uptake in vaccination numbers when educational messages were combined with reminders. Because the efforts of the flu shot initiative fall on a small portion of the nursing faculty, increasing nursing volunteers will be helpful in creating prolonged and flexible schedules noted as convenient by everyone.

As discussed above, the need to reach a larger portion of the campus community still exists. Earlier and sustained outreach efforts for education regarding the benefit of the influenza vaccine is necessary to reach more members of the campus community. Among the reasons identified by Bödeker et al. [15] for not receiving a vaccination, include uncertainty in the effectiveness of the vaccine, not having considered the need for the influenza vaccination, and perceiving themselves as having a low risk of contracting the virus. Education regarding the timing and effectiveness of the vaccine and personal risk of illness may improve outreach efforts and vaccine uptake.

Incentives have been used in other settings to improve vaccine uptake [8]. Utilizing incentives involves employing external influences, like the promise of a reward, to motivate an action. Implementing a similar approach within a university setting has the potential to generate favorable outcomes. These incentives can be as simple as an opportunity to win a gift basket or receive time off.

### Limitations

There are limitations regarding this evaluation study. With hindsight, more information might have been gathered if we had interviewed our participants rather than providing them with a written survey. There was no opportunity to follow up on responses that may have needed clarification. Additionally, this project does not include the perspective of those who decided not to receive a flu shot, which could be considered a limitation.

### Recommendations and Conclusion

Recommendations are needed to improve the efforts of flu vaccine administration. We offer the following suggestions:

1. Robust and frequent marketing strategies will help increase the vaccination rates. Efforts should include continuous reminders after the initial announcement with more frequent communication as the date of the event approaches. Hanging

posters and handing out flyers would also be helpful reminders to promote the vaccination endeavor.

2. If the vaccine is declined, faculty should follow up seeking additional information. When religious objections or perceived medical reasons are reported for declining the vaccine, no follow up conversation is needed. However, if the refusal is related to other issues, further education may be indicated.
3. After the primary initiative, and in an effort to enhance vaccination rates across campus, providing extra dates will be helpful to immunize those who were off campus, ill, or may have reconsidered their decision to be vaccinated. Because this will be a follow up project and achieved on a smaller scale, fewer nursing faculty and students will be required for the task.
4. Easily accessible drive through clinics may provide additional convenience as people arrive and depart campus. Additionally, providing in-person scheduling will be beneficial for faculty and staff who work off-site.
5. In an effort to build a healthy campus setting, other initiatives may include faculty-led wellness events such as health education and screenings. These ongoing efforts may help establish relationships between nursing and other departments, leading to improved vaccination participation.
6. Scheduling a large effort vaccine administration requires careful planning and consideration for the times and locations of administration on campus visits. Multiple trips and additional nursing personnel may be required to reach as many faculty and staff as possible in an aim to achieve herd immunity.

The success and sustained growth of this effort hinges significantly on the willingness of the faculty and staff to embrace the vaccination initiative. Emphasizing the critical role of influenza vaccination helps maintain a healthy campus community. As such, nursing faculty remain dedicated to promoting wellness on campus.

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