

Elementary School Faculty Flu Vaccination Rates

V. Agusala, M. Carey, T. Galvan, J. Jurecky, M. Meuth, E. Morris, S. Sarrami

Faculty Facilitator: Crystal Craig, MD

Patients, Physicians & Populations 1 (P3-1) • Spring 2020

Study Question and Background

Influenza, most common between late fall and spring, affects a large portion of the United States every year. While many people recover quickly and without serious consequences, others are at higher risk for complications such as children, older adults, pregnant women, and people with pre-existing medical conditions. The CDC reported a flu vaccination rate of 45.3% among adults ≥ 18 years for the 2018-2019 flu season, an increase of 8.2 percentage points from the 2017-18 flu season and 2.0 percentage points higher than the 2016-17 season¹. According to the CDC, the flu is a significant cause of missed work and school across the country; therefore, the CDC recommends annual influenza vaccination for all persons aged 6 months or older who do not have any contraindications².

Through an anonymous survey of Bayless elementary faculty and staff, we hope to elucidate the following: what is the relationship between flu vaccination trends amongst faculty and staff, incidence of illness, and its effect on the number of days missed per year by faculty?

Study Population

Bayless Elementary School Faculty and Staff

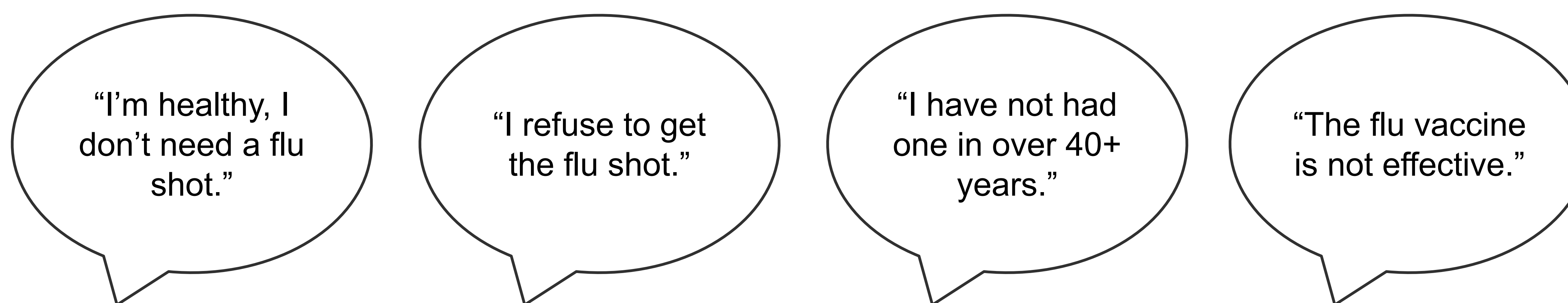
	N (%) - total number of respondents
	37 (100)
Teachers	26 (70.3)
Office	5 (13.5)
Other	6 (16.2)
	N (%) - total number who got flu shot
Received flu shot through United at Bayless	24 (92.3)
Other	2 (0.7)

Data Collection Methods

A seven-question survey was created to ascertain teacher and staff influenza immunization information at Bayless Elementary School in Lubbock, Texas. The survey included questions on whether or not a 2019/2020 influenza shot was received, why it was or wasn't received, and any confounding factors that affected immunization rates. We then took this data and quantitatively analyzed it for any relationships and displayed the results graphically.

Results

Out of the 37 respondents, 70.3% received the flu shot. From the 26 people who received the flu shot, 5 got the flu (19.2%). From the 11 people who did not receive flu shot, 2 got the flu (18.2%). Thus, our results ultimately were not significant.



Some reasons given by respondents for declining the flu vaccination.

Received a flu shot between October 2019 and March 2020

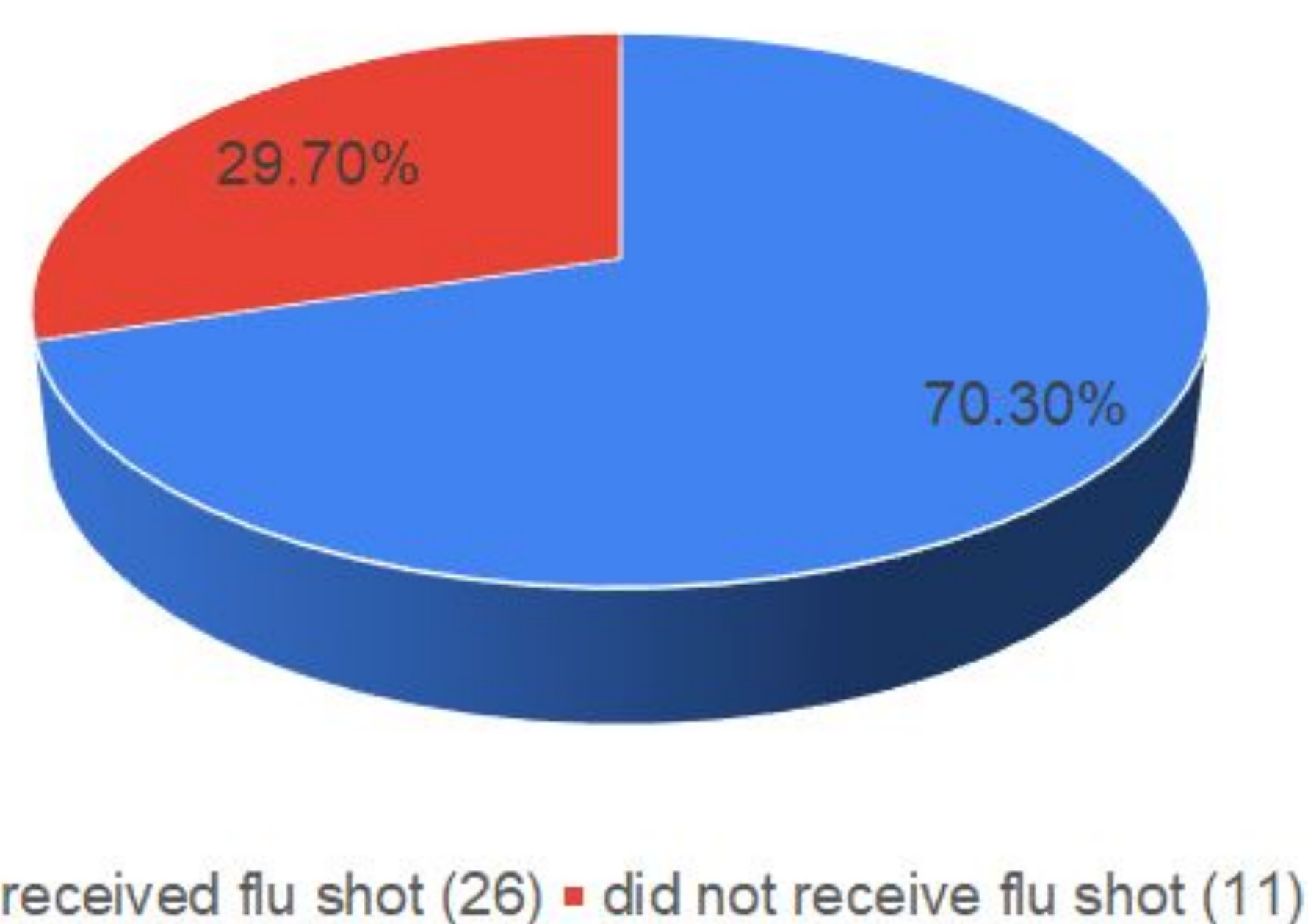
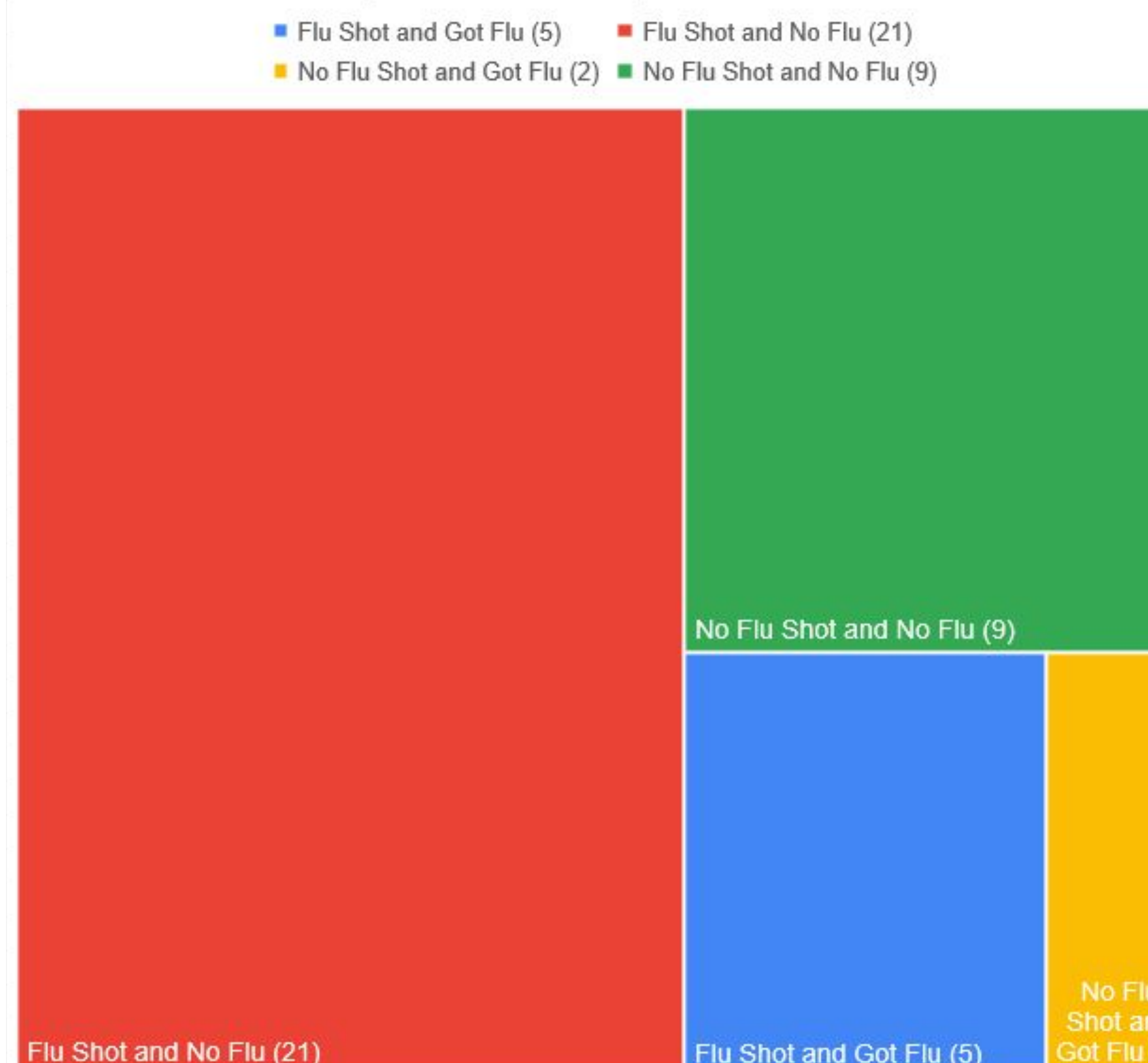


Figure 1 (above) Faculty and staff vaccination during the 2019-2020 flu season. Figure 2 (right) Distribution of flu vaccination and self-reported flu incidence

Bayless Elementary Flu Shot Data



Conclusions

Our data was not significant to prove that flu vaccines lowered the probability of getting the flu compared to not getting a flu vaccine amongst Bayless Elementary faculty and staff. We largely attribute this inconclusivity to our small sample size and our dependence on self-reporting of flu incidence. In addition, we learned that the school offered flu shots to faculty and staff, despite not requiring annual vaccination. In our survey we included a question as to why faculty and staff did or did not receive a vaccination, and we found that several reasons listed included ample evidence of misinformation and mistrust of flu vaccination. This belies the larger issue of suboptimal adult vaccination participation across the US and underscores the importance of improved education as well as the possible benefits of requiring adults working with children to receive flu vaccination.

Next Steps

- Include more schools in the study.
- Expand the questionnaire to include factors such as age, self-reported symptoms of flu, history of receiving flu shot, and opinion on flu shots.
- Administer survey in person to potentially improve response rate.
- Examine rate of flu shots in kids compared to rate of illness.

References

1. Grohskopf, L.A., et al., Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2019-20 Influenza Season. MMWR Recomm Rep, 2019. 68(3): p. 1-21.
2. CDC Flu Vaccination Coverage, United States, 2018-19 Influenza Season.