

Solving the Flu Epidemic: Pharmacist-Administered Influenza Vaccine

in a Health Systems Setting

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BACKGROUND

The influenza (flu) virus is a highly contagious respiratory illness, spread through aerosolized droplets, that primarily affects the nose, throat and occasionally the lungs. Complications of the flu virus can be fatal and prevalence is highest among the elderly (≥ 65), pregnant women, and young children. Prevention of the flu can be done through good handwashing techniques, avoiding those who are sick and receiving the influenza vaccination yearly.

Despite the CDC's recommendation to receive yearly influenza vaccinations, many people choose not to get vaccinated. During the 2017-2018 season, only 37.1% of adults were vaccinated against the flu, a 6.2% decrease from the previous season. In addition, only 78.4% of healthcare providers were vaccinated.

Currently, pharmacists are being underutilized as immunizers, even though non- traditional settings, such as pharmacies, is more convenient and cheaper for patients. Due to this, the TTUHSC system decided to offset the cost of administering influenza vaccinations by shifting administration from nurse managed to pharmacists managed flu clinics during the 2018-2019 influenza season.

OBJECTIVE

The aim of this project was to improve the influenza vaccination rates of TTUHSC associated direct patient care employees, and compare the cost of nurse run flu clinics to pharmacist run flu clinics.

To design and implement multiple interventions designed to 1- improve and streamline the process, 2- improve communication to employees, and 3- improve program management in regards to the number of vaccines to order and distributing the patients in a timely manner.

METHODS

A retrospective chart review was conducted on all direct patient care employees who received the influenza vaccination from September 1, 2018 to December 31, 2018 at Texas Tech University Health Sciences Center associated clinics in Lubbock, Texas. The aim of the project was to determine if utilizing pharmacists as immunizers impacted employee vaccination rates.

Nominal data was compared using Pearson Chi-square. Cost evaluation was utilized in comparing profit/loss from the 2017-2018 vaccination season to 2018-2019 vaccination season. The 2017-2018 vaccination rates served as the baseline; we were looking for a 10% increase over baseline for vaccination rates and a 5% increase in each subsequent season due to interventions that we will impose to optimize the program.

RESULTS

Demographics (n=964) Number of Patients (%)

Sex

Male 344 (35.68)

Female 620 (64.32)

Age

18- 25 37 (3.84)

26- 30 207 (21.47)

31- 45 397 (41.18)

45- 50 77 (8)

51- 65 193 (20.02)

≥ 65 52 (5.39)

Vaccine Type

Fluarix ® 154 (16.00%)

Fluzone ® 720 (74.69%)

Occupation

Resident/Fellow 121 (18.25%)

Unknown 139 (20.97%)

Nursing/Pharmacy Cost Comparison

Nursing Annual Expenses FY 2017/2018

Total Annual Expenses \$ 33,663

Insurance Reimbursement Revenue for Flu Vaccine Billing \$ 0

Loss for AY 2017/2018 (revenue minus expenses) (33,663)

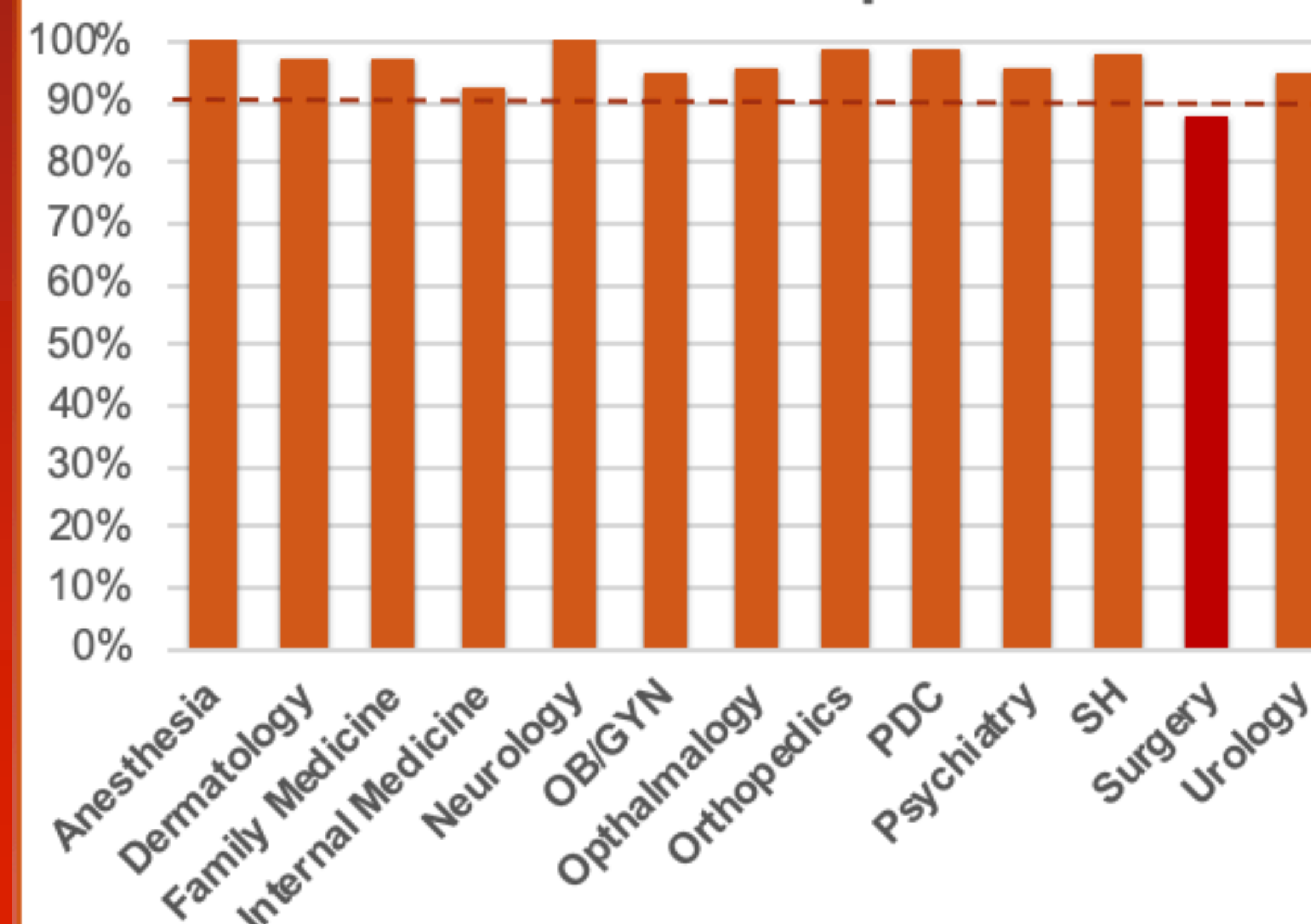
Pharmacy Annual Expenses FY 2018/2019

Total Annual Expenses \$ 31,310

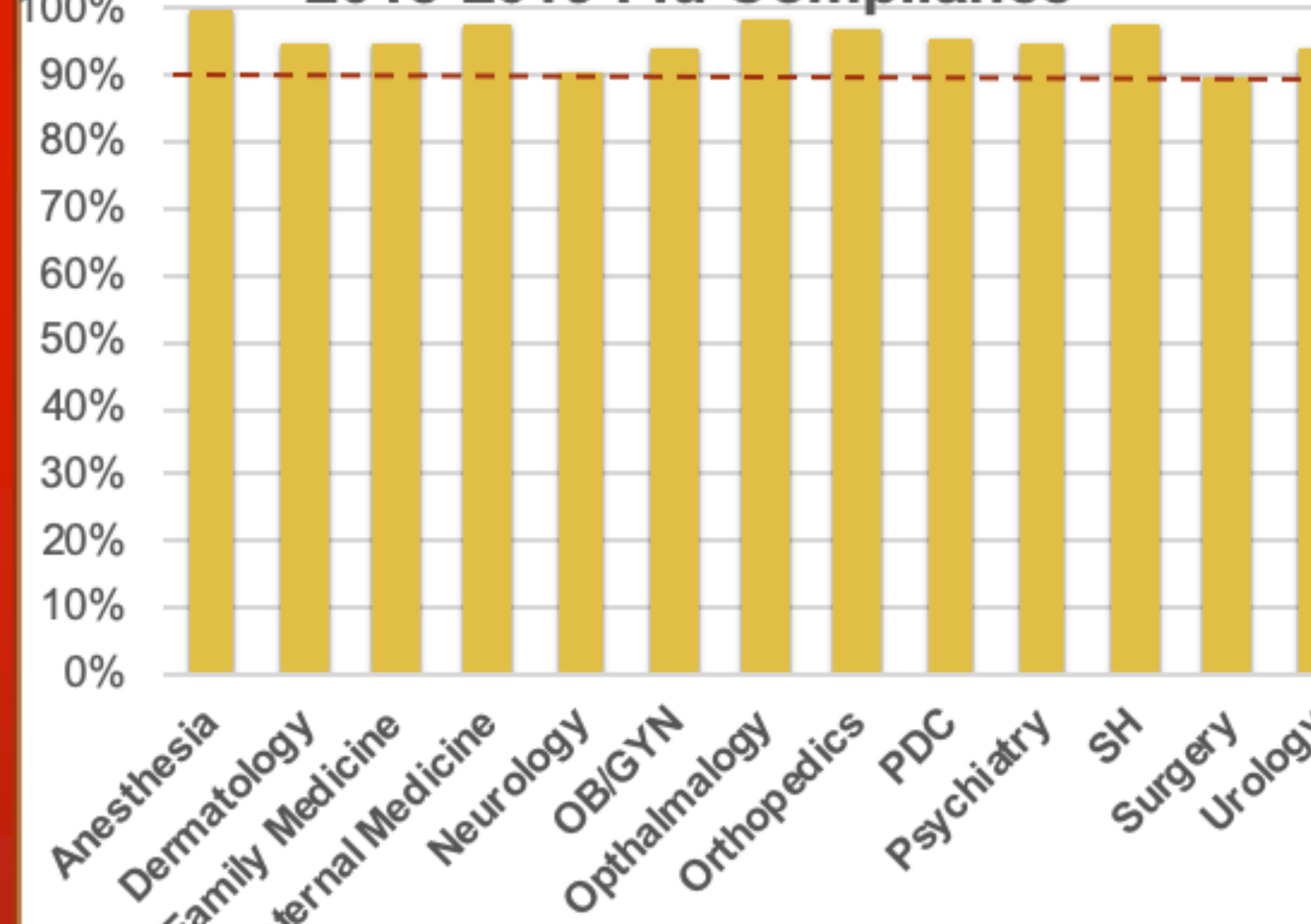
Insurance Reimbursement Revenue for Flu Vaccine Billing \$ 25,525

Loss for AY 2018/2019 (revenue minus expenses) (5,785)

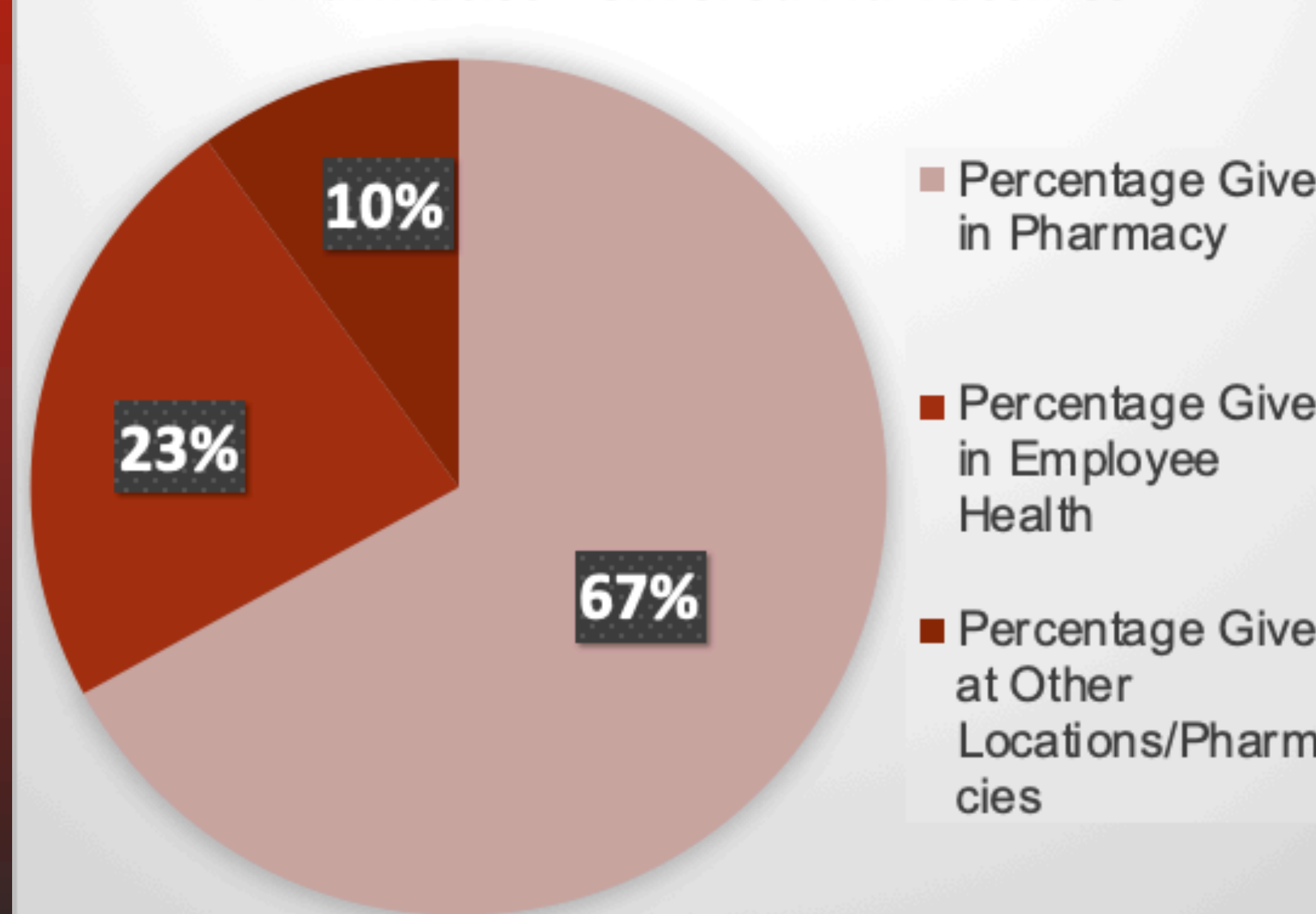
2017-2018 Flu Compliance



2018-2019 Flu Compliance



Pharmacist Delivered Flu Vaccines



CONCLUSIONS

- There was no difference in vaccination rates with pharmacist managed flu clinics vs. nurse managed flu clinics
- Utilization of pharmacists as immunizers was a cost saving technique for the institution
- Continuously employing various quality improvement techniques will allow pharmacist run flu clinics to operate in a timely fashion during the upcoming flu season

LIMITATIONS

- Single Institution
- Inability of the pharmacy to directly order drugs
- Limited to direct patient care employees

SELECTED REFERENCES

1. Garten R, Blanton L, Elal AI, et al. Update: Influenza Activity in the United States During the 2017–18 Season and Composition of the 2018–19 Influenza Vaccine. MMWR Morbidity and Mortality Weekly Report. 2018;67:634–642. doi: <http://dx.doi.org/10.15585/mmwr.mm6722a4>.
2. Scutti S. Flu season deaths top 80,000 last year, CDC says. CNN. <https://www.cnn.com/2018/09/26/health/flu-deaths-2017--2018-cdc-bn/index.html>. Published 2018. Accessed November 12, 2018.
3. Black CL, Yue X, Ball SW, et al. Influenza Vaccination Coverage Among Health Care Personnel — United States, 2017–18 Influenza Season. MMWR Morbidity and Mortality Weekly Report. 2018;67:1050–1054. doi: <http://dx.doi.org/10.15585/mmwr.mm6738a2>

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