

Compliance with Vaccinations in a Diabetic Population of Veterans at The East Orange VA Medical Center (EOVA)

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Background

Patients with diabetes have a deranged immune system making them more susceptible to various infections. Hospitalization and death due to pneumococcal disease and influenza are higher in diabetic patients. The aim of this study is to determine the rate of compliance with necessary vaccinations in a diabetic population of Veterans. The short-term goal is to increase the adherence to vaccination schedule through teaching and counseling patients about the importance of these measures. The ultimate benefit will be reducing the morbidity and mortality due to bacterial and viral infections. Results of this study can raise awareness among patients and health care providers and consequently encourage for better diabetes management.

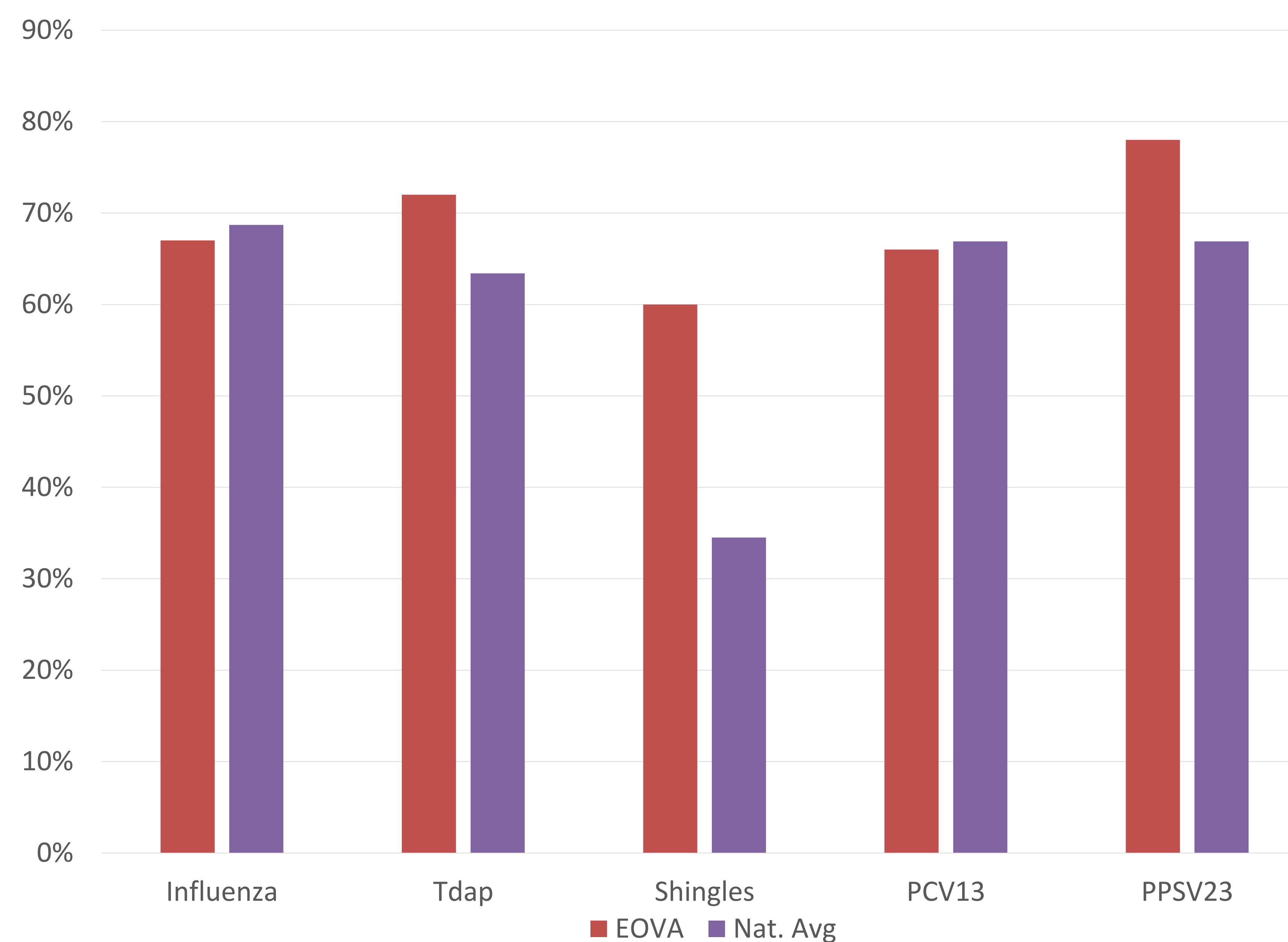
Materials and Methods

We randomly selected 150 patients who presented to the EOVA Medical Center from 7/1/2018 to 6/30/2019. Patients' charts were reviewed to look at the rate of administration of various vaccinations (Influenza, Pneumococcal, Shingles, and Tdap). Primary outcomes were the rates of compliance with each vaccine. Secondary outcome was the reason for non-compliance.



Results

The rate of vaccination compliance for Influenza and Tdap was 67% and 72%, respectively. Among those who were eligible to receive Shingle's vaccination, the compliance rate was 60%. The vaccination rate of those who were eligible to receive PCV13 was 66%, whereas 78% of Veterans received PPSV23 vaccine. The highest rate of vaccination compliance was in PPSV23 group while the lowest rate of vaccination was in Shingles group. For patients who did not receive vaccinations, 20% had documentation on why it was not performed, most commonly due to the patient declining.



Graph 1. Rate of vaccination compliance at EOVA medical center in comparison to CDC national average for adults >65 years of age

Conclusion

Overall, the rate of vaccination compliance was 69% among all groups. Notably, this number was greater than national average rate. The reason for non-compliance was not well documented. Further prospective studies will be needed to identify the reason for non-compliance as well as the ways to improve education and compliance rate. Future studies may benefit from extrapolating vaccination compliance amongst poverty status, race and educational status. This data may prove useful in comparing with future data collection as national vaccination rates have declined due to the COVID-19 pandemic.

References

- 1- Indian J Endocrinology Metab. 2012 Nov-Dec; 16(6): 886-893
- 2- Vaccination Coverage Among US Adults, NHIS, 2017.