

Introduction

In 2019 influenza was responsible for 55,685 deaths, despite availability of vaccination. The influenza vaccine has been shown to lessen the severity of illness and reduce mortality.

The virus is spread through droplets and transmitted via coughing, sneezing, and talking to others close by. This creates a unique challenge for inpatient behavioral health units (IBHU) designed to promote socialization through shared spaces and therapeutic group sessions. In this environment communicable diseases are easily spread and can result in outbreaks on the unit, which can result in temporary unit shutdown.

Patients diagnosed with psychiatric illness have a ten-year lower life expectancy than the public. Lack of preventative care, such as vaccinations, contributes to the problem.

Some studies have examined the rationale behind vaccine refusal. This study investigates the medical comorbidities, psychiatric diagnoses, and demographics and their association with influenza vaccination in a vulnerable group.

Methods

A retrospective chart review was performed for all IBHU admissions at Vidant Medical Center during the 2018-2019 influenza season (October-March). Final sample size was 518 based on availability of vaccination status. Statistical methods used were chi square analyses and Mann-Whitney U Tests.

Results

Patients with schizophrenia were 16.7% less likely to be compared to other mental health diagnoses.

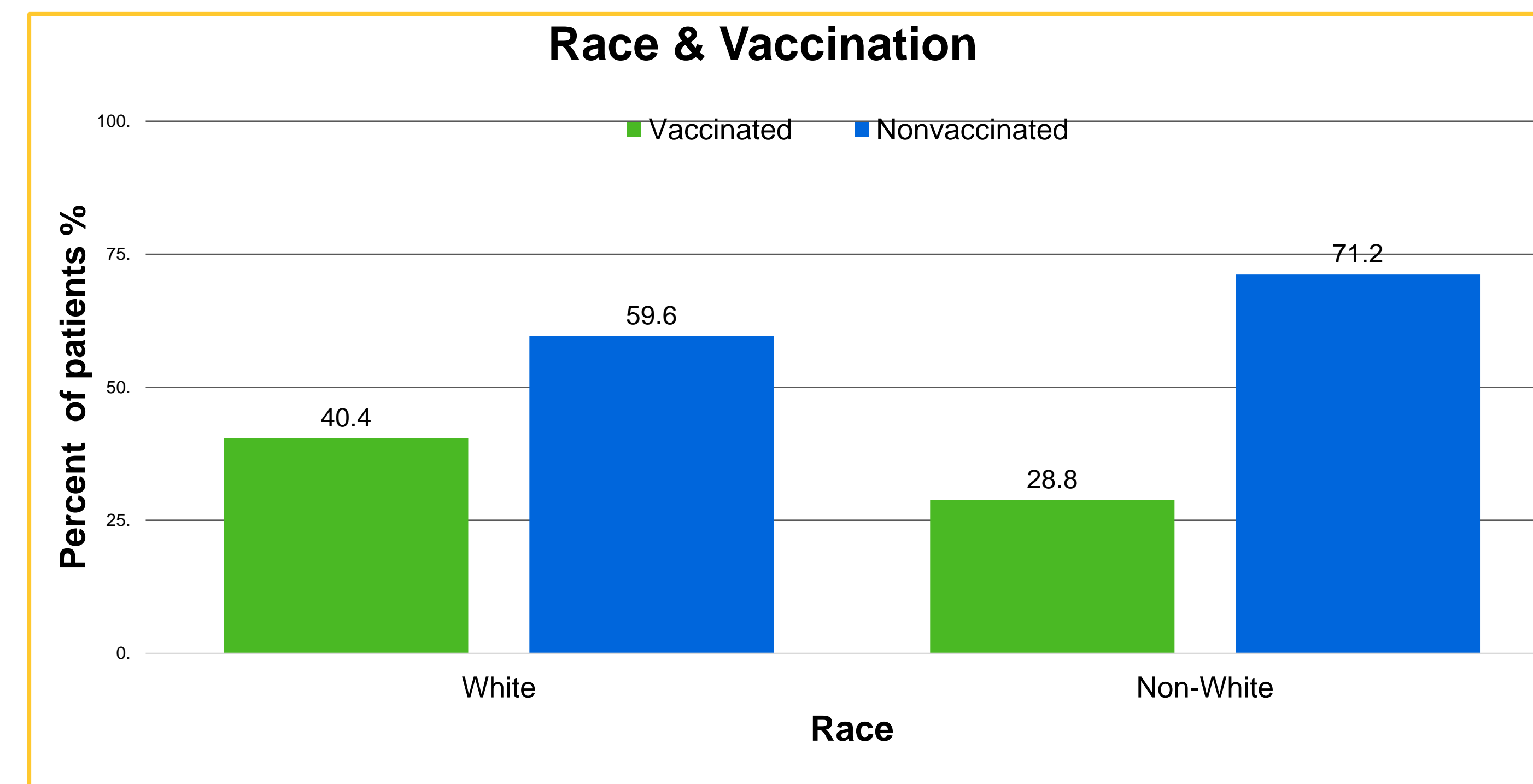
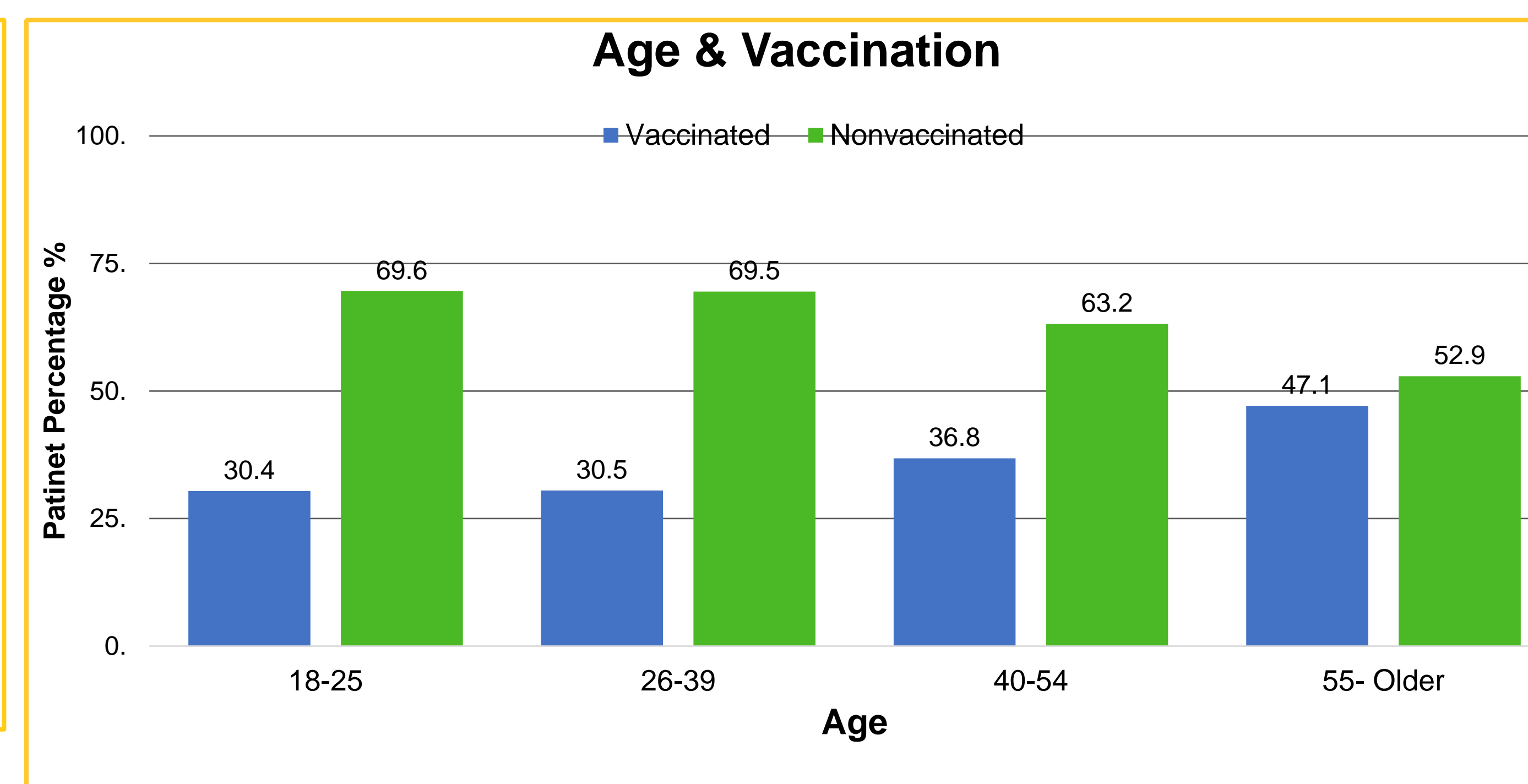


Figure 1: White patients are significantly more likely to be vaccinated than nonwhite patients ($p < 0.01$).

Figure 2: Patients over 40 years of age are more likely to be vaccinated ($p = .041$). This is exhibited most strongly in patients 55 and older.



Medical Comorbidities and Inpatient Vaccination

	Given n=62		Refused n=337	
	n	%	n	%
Epilepsy	9	39.1	14	60.9
All other diagnoses	53	14.1	323	85.9

Table 1: The only diagnosis during hospitalization where a difference between those who refused and those who were given vaccination was epilepsy ($p = 0.001$). In general, patients with diabetes, epilepsy, and autoimmune issues associated with cancer (50% or higher) were more likely to get vaccinated when compared to those without these comorbidities (approximately 33%).

Discussion

During 2018-2019 influenza, an easily transmissible respiratory virus, caused an outbreak on the IBHU resulting in temporary unit closure. Disease outbreak, despite vaccine availability, prompted the need for more understanding about vaccination status in this population.

Patients with schizophrenia had lower vaccination rates, which may be exacerbated by obtaining vaccine consent at admission when symptoms are poorly controlled.

Further highlighted are known health care disparities faced by non-white patients, exhibited in their lower vaccination rates. This is consistent with 2020 survey showing 70% blacks experience mistreatment in health care with 55% having no trust in the healthcare system.

Patients over the age of forty or with the comorbidities of diabetes, autoimmune/cancer, and epilepsy received higher rates of vaccination. These findings may be due to the heavy symptom burden of disease and more frequent usage of healthcare creating opportunities for improved rapport and development of trust in the healthcare system.

Limitations of the study are the lack of interventions and its retrospective nature. Knowledge gained from findings can be applied to research regarding education and quality improvement. Particularly interesting would be to alter the time of vaccine consent to the 24 hours prior to discharge and see the effects on inpatient vaccination acceptance rates.

Abstract/Manuscript/References

