



Stopping Pneumonia Before It Happens: Improving Pneumococcal Vaccination Rates at Iron Horse Family Medicine Clinic

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Background

- In the US, about 24,000 people die from pneumococcal pneumonia each year.
- The large majority of infection and mortality from pneumococcal infection occurs in patients 65 years and older.
- In 2014, the Advisory Committee on Immunization Practices in the CDC recommended that adults aged ≥65 years old should receive the PCV13 followed 1 year later by the PPSV23.
- The CDC estimates that in 2016 just 66.9% of adults ≥ 65 years have the pneumococcal vaccination.
- At the Iron Horse Family Medicine Clinic, HEDIS measures are used to gauge provider performance. The pneumococcal vaccines are not included in these HEDIS measures.

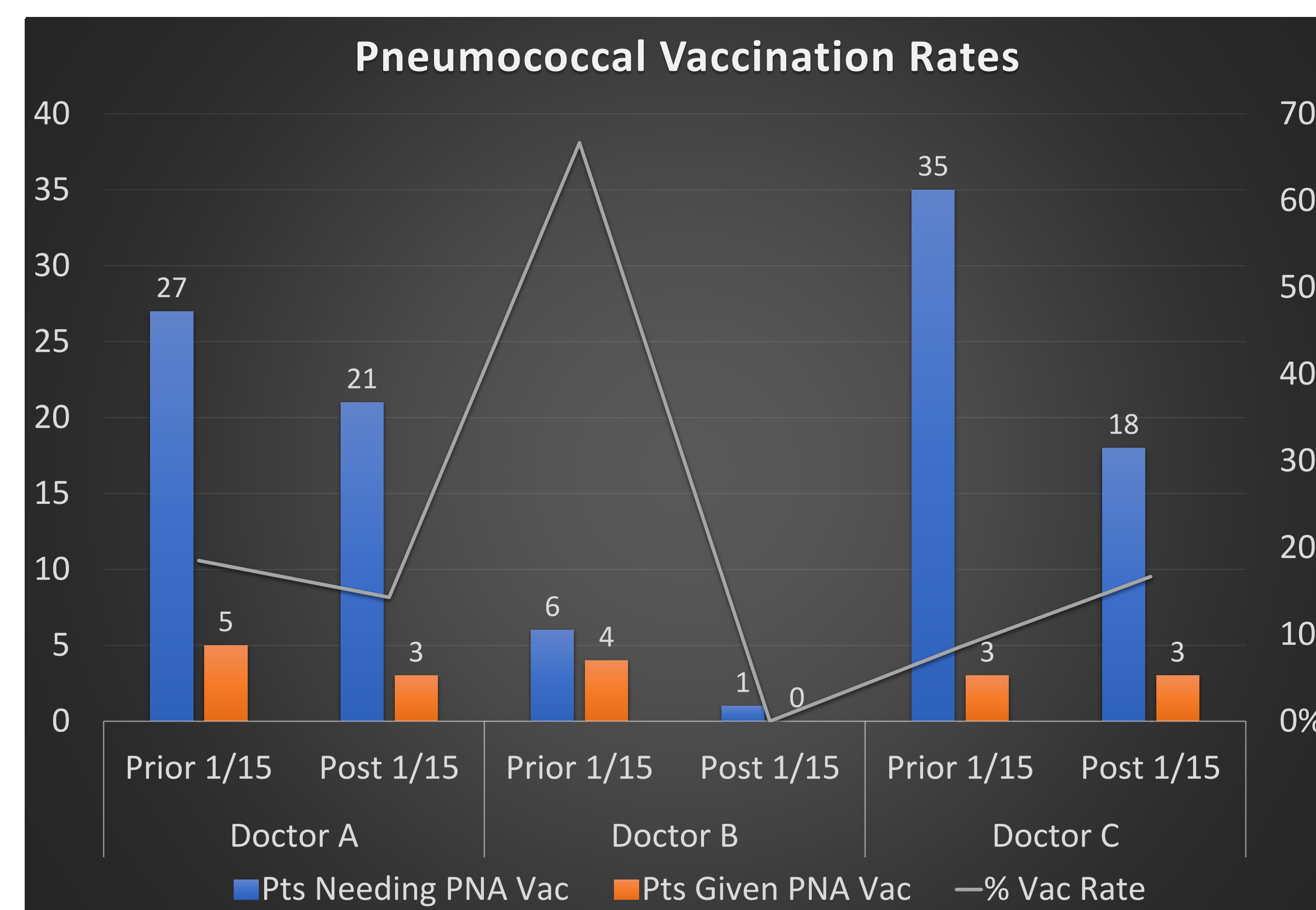
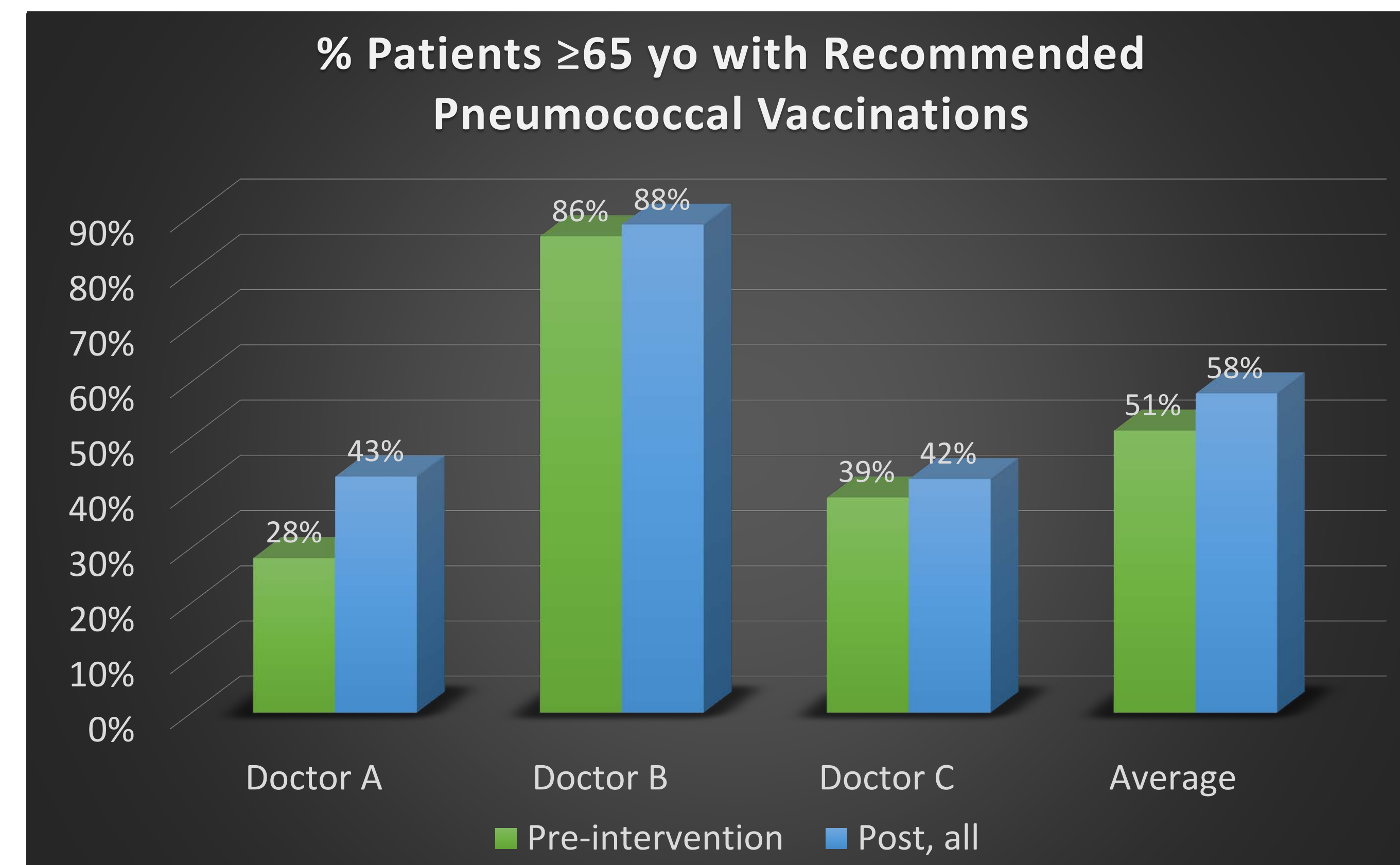
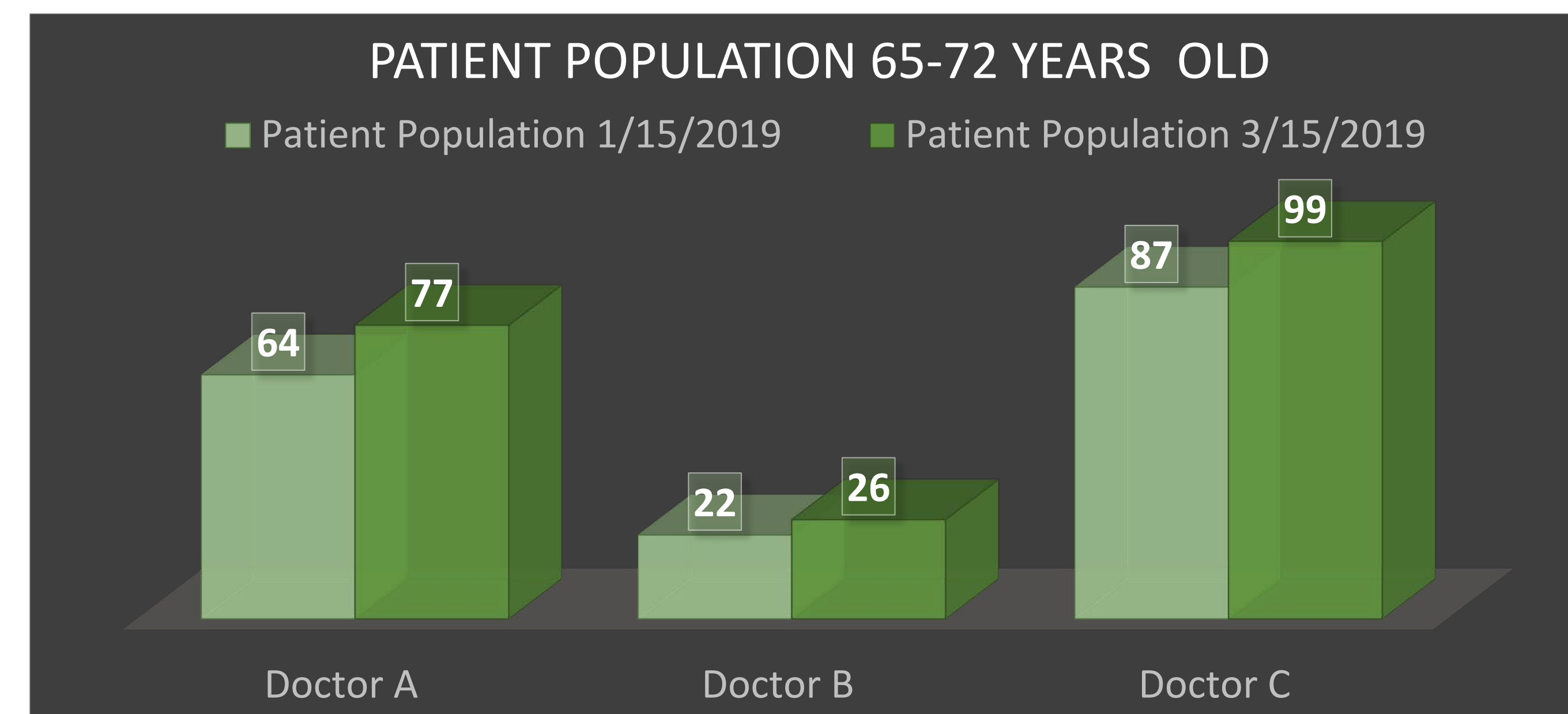
Objective

To increase the average pneumococcal vaccination percentage by 5% for patients ≥65 years at the Iron Horse Family Medicine Clinic over two months.

Methods

- Selected three long standing physicians at the Iron Horse Family Medicine Clinic to intervene with.
- Worked with the Population Health Department at Evans Army Hospital, to collect pneumococcal vaccination data across civilian clinics and army clinics.
- Only collected data for patients 65-72 years old to avoid confusion with recommendations for pneumococcal vaccination prior to 2014.
- Calculated the baseline pneumococcal vaccination percentage in patients ≥65 years old for each provider and as a clinic as a whole.
- Once weekly at physician huddles, reminded providers to please complete pneumococcal vaccinations as the clinic's rate is 51%, which is below the national average of 67%.
- After two months of intervention, recollected population health data including specific dates of last clinic visits.

Results



Discussion

Pneumococcal Vaccinate Percentage:

- Define: # Patients Vaccinated/Total Patient Population
- Found a 7% increase in vaccination percentage after the intervention.
- High rate of turnover in Army leading to a net gain of 37 new patients between the three providers.
- Influx of patients had a high rate of previous pneumococcal vaccination, which accounts for about 5% of the measured increase in vaccination percentages.
- Over two month intervention, 6 patients were vaccinated accounting for a 2% increase in the vaccination percentage.
- Significant variation in vaccination percentages per physician.

Pneumococcal Vaccination Rate:

- Define: # Patients Vaccinated per Time Period/ # Patients Needing Vaccine per Time Period
- A better comparative measure for an intervention than vaccination percentage.
- Small data set of 40 appointments and 6 vaccinations makes calculating a useful vaccination rate difficult.
- Significant variation in vaccination rates per physician.
- Poor rates of vaccination obvious, opportunity for improvement clear.

Future Directions

- Process evaluation at clinic to potentially identify other possible opportunities for intervention.
 - Work load challenge, eliminate steps
 - More active interventions
 - Nurse lead vaccinations
- Investigate physician to physician variation further.
 - Evaluate a larger number of providers including PAs, NPs, and MDs/DOs.

Reference

- Centers for Disease Control and Prevention
 - Vaccination Coverage Among Adults in the United States, National Health Interview Survey, 2016