

Improving Childhood Vaccination Rates of Patients Age 0-18 Years Old in the OSU Eastgate Clinic Population



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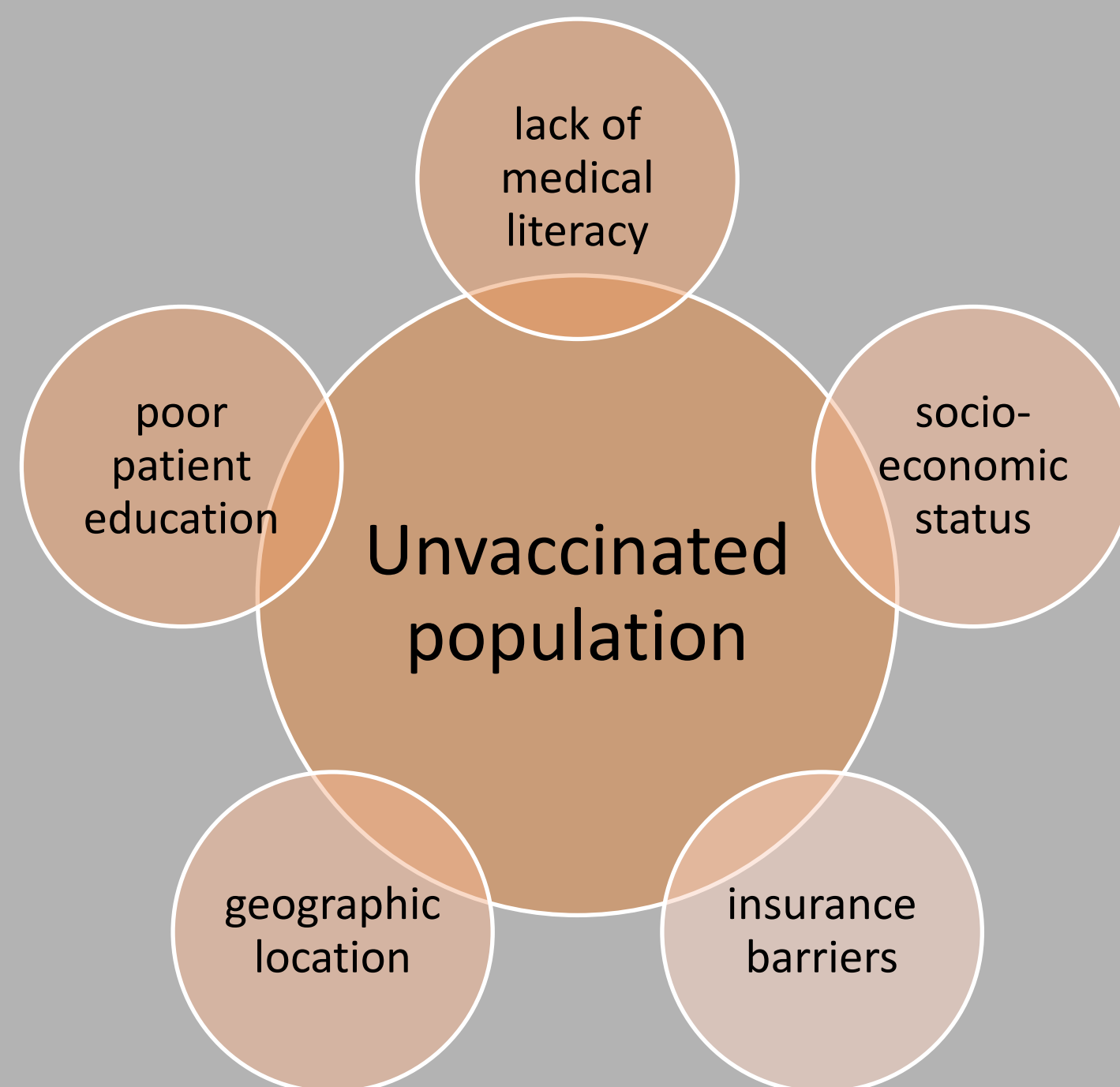
AIM

Decrease unvaccinated status of Eastgate children patients ages 18 and under by 75% during a three-month period, January through March 2022.

INTRODUCTION

In 2017, nationwide vaccination rates in young children remained at a stable, high level (2). However, multiple health care disparities have been virtually unchanged for decades resulting in decreased compliance in vaccination adherence. Some of these include, but are not limited to, low socio-economic status, insurance barriers, geographic location, lack of medical literacy, or poor patient education by health care providers (5).

The COVID-19 pandemic brought an extra layer of complexity to the decline of childhood vaccine administration in particular, the MMR vaccine (6). This being possibly due to initial “stay at home” orders and parents fearing that their children were more likely to get sick by going to clinics. Additionally, multiple clinics across America experienced a decrease in supply of vaccinations due to the COVID-19 pandemic. Oklahoma remains one of several states that has a lower vaccination rate of school age children secondary to allowing philosophical exceptions to school required vaccinations (4).



1. Multi-factorial Impact on Unvaccinated Status

METHODS

The Oklahoma State Immunization Information System (OSIIS) database was utilized for query of all the current Eastgate clinic patients under the age of 18 requiring updated vaccinations (1).

Criteria for this included the patient having been seen in the clinic within the last 3 years and having received their last vaccines at this location. The vaccinations that were assessed in the query were Dtap, HepA, Hep B, Hib, HPV, meningococcal, MMR, pneumococcal, polio, rotavirus, varicella, influenza and COVID-19.

The formal query of OSIIS was performed by LPN nursing staff on 1/7/22. 145 patients met criteria to be assessed in the query. Of these patients, those who already had upcoming appointments were excluded, and patients that required flu and COVID vaccines only were excluded.

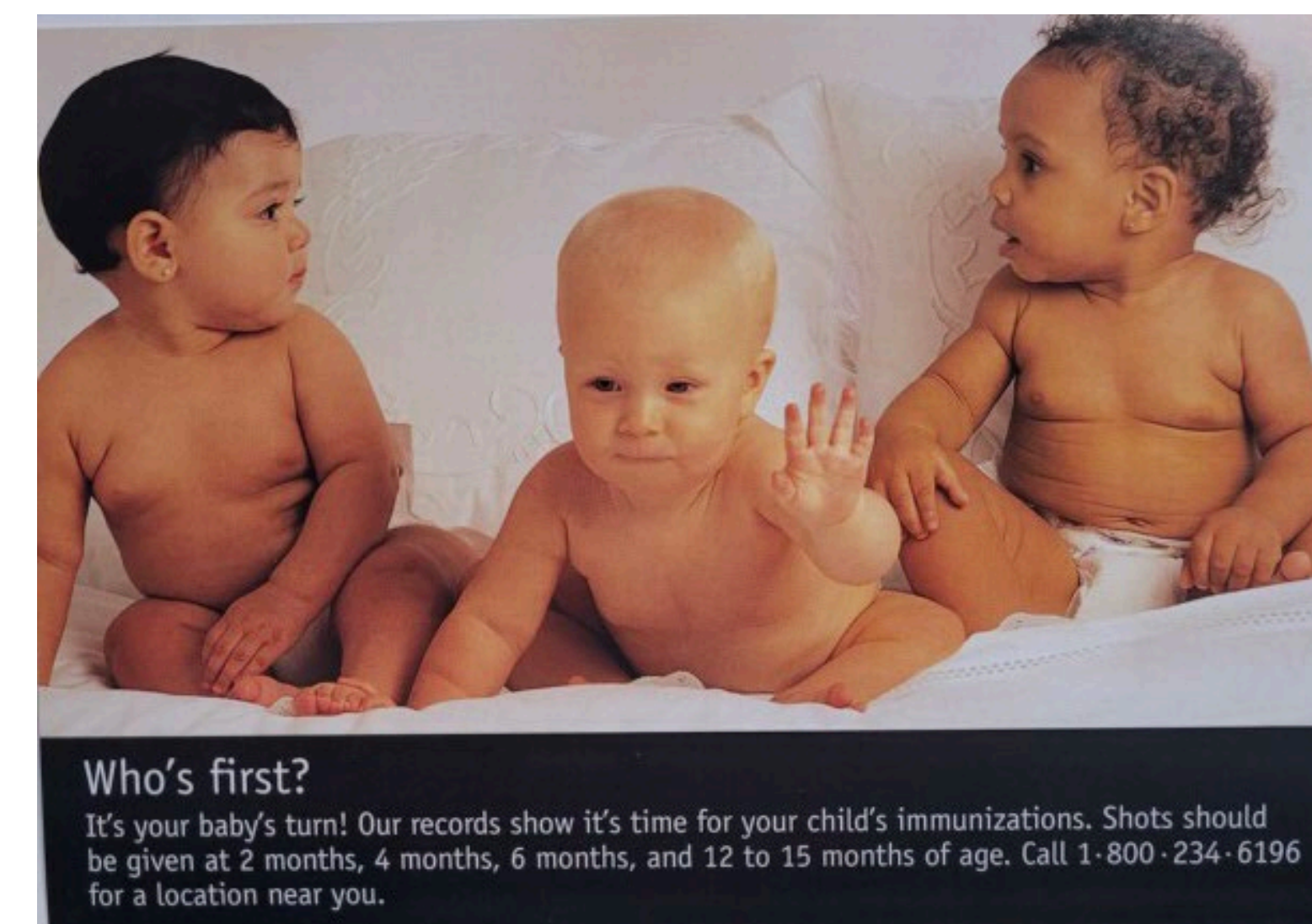
The remaining patients were mailed reminder cards provided by the Regional Vaccines for Children which asked them to make an appointment for vaccination update and sent out in bulk on two separate dates of 1/22/22 and 1/28/22. The clinic address and number were stamped on the card, with a 1-800 number for information about any local clinics offering childhood vaccinations.

RESULTS

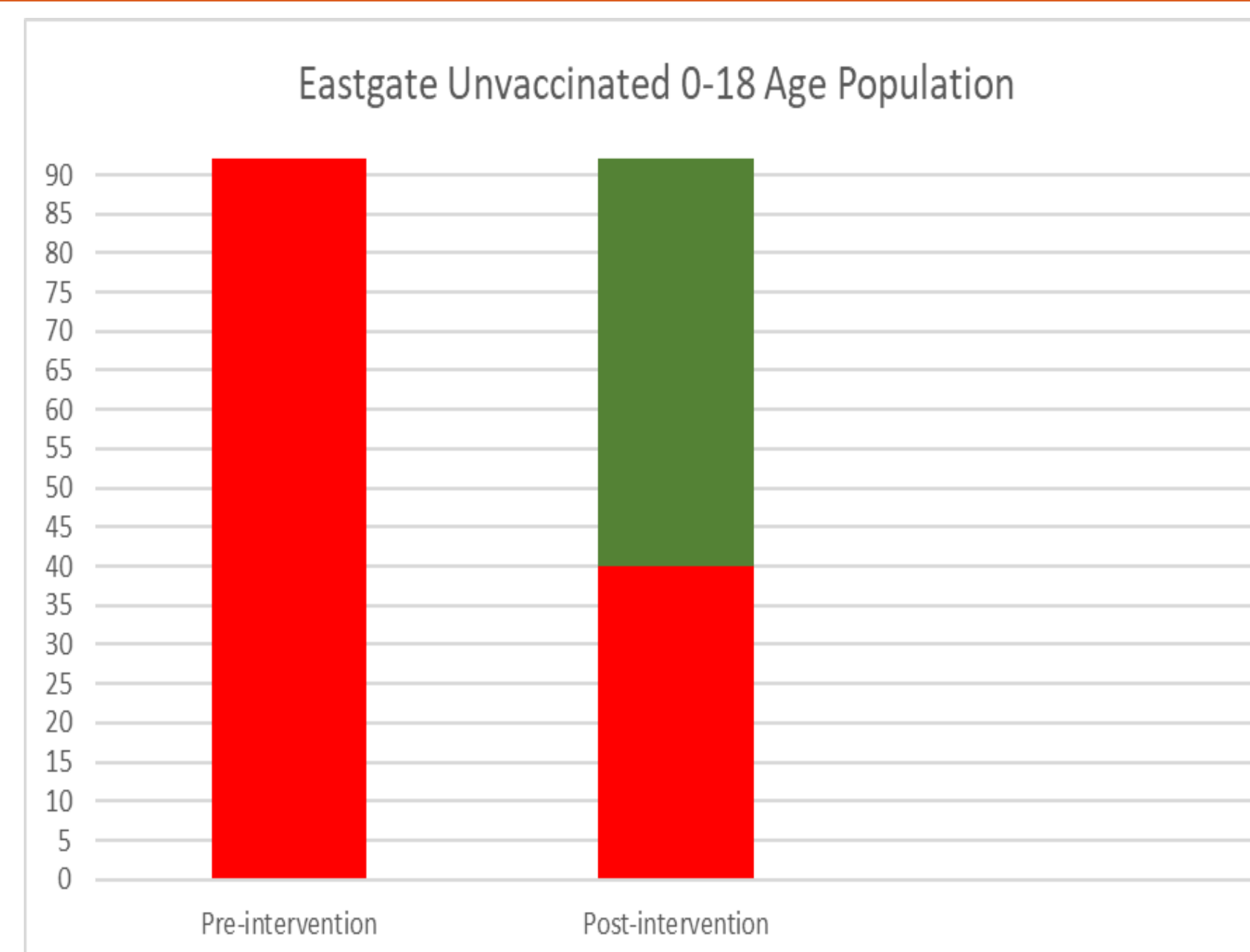
Of the 145 patients in the initial query, 92 received the intervention of a mailed reminder card. Of those 92 patients who were sent a reminder card, 50 patients under the age of 18 came into the Eastgate clinic and received vaccinations during the time period of 1/7/22-3/25/22. There were 2 additional patients in the group who received vaccines during that time period from another provider.

This makes 54.35% of improvement rate of vaccinated patients under the age of 18 in the clinic. There were some patients that went to other clinics instead of Eastgate for vaccination update during that time period as well, bringing the percentage of overall improved vaccination rate to 56.52%.

Any parents that called to make an appointment for their children to have well child checks and receive vaccinations were scheduled with a family medicine resident physician. On 3/25/22 clinic staff began to run a query of the patients that were sent reminder cards to see how many of them had followed up and received vaccines since January 1/7/22. Making the total time period of assessment 1/7/22-3/25/22.



2. Image of Vaccine Reminder Card Sent to Patients (3)



3. Effect of Intervention on Patient Population

CONCLUSION

Overall, there was marked improvement in vaccination rates with reminder cards. While the limited number of patient subjects made this study difficult, there are multiple factors that could have influenced the accuracy of this study. One major potential factor being that patients could have received vaccinations from a clinic that did not document in the OSIIS system. A large amount of the Eastgate clinic patients have a Central American heritage, and there is even a possibility that the patients received vaccinations back in their home countries during this time. The patients that did come in, could have already been planning on making an appointment without the reminder card. Reminder cards could have very easily gotten lost in the mail or sent to the wrong addresses.

Additionally, the patients that did receive vaccinations could have been in the clinic for another reason such as an acute medical problem and could have been offered vaccinations by nursing staff incidentally. The study would have been too complex for nursing staff to differentiate if each patient received their vaccine during a well child check versus an unrelated medical problem clinic visit. But future analysis into this could prove useful. Despite us not reaching our initial aim, with the results we have achieved, we are hopeful that by using our current method we will obtain our goal by the end of 2022.

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