COVID-19 Vaccinations: Best Practices for FQHCs
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Background
This project was completed with Better Health Partnership, a multi-stakeholder Health Care Improvement Collaborative. Members are committed to transforming healthcare to achieve better care, better health, and lower costs. Better Health Partnership is located within MetroHealth Medical Center, at 2500 MetroHealth Drive, Cleveland, OH 44109.

Introduction
As we know, with the 2019 Coronavirus outbreak, roles of the environment and human behaviors have emphasized inequalities that continue to persist. CDC recommendations have emphasized the exception of essential workers, who have been more likely to be African American and approximately 70% did not have a college degree. As a result, this project aimed to look at the vaccination rates in Cuyahoga County based on region and race to see what practices work best for FQHCs in order to improve equity in distribution.

Methods of Evaluation
HYPOTHESIS
FOHCs can provide more equitable distribution of vaccines through pop-up sites.

STUDY
Retrospective study

DATA
Data was provided by BHP and sample FQHCs

ANALYSIS METHOD
SPSS Statistics 27

Datasets
1. JANUARY
   General vaccination data through January 31
2. FEBRUARY
   February Pop-Up Data for Sample FQHC
3. APRIL
   General vaccination data through April 10
4. POP-UP vs. CLINICAL
   Comparison of vaccinations for Sample FQHC

Chi Square Analysis
Before comparing data between vaccinations and regions, chi-square tests were used to look at the relationship between the region (city vs. suburb) and the variables of percentage non-white population, the average income range, and housing density. Chi-square tests were completed for each of these, and the calculated p-values were all 0.000. This shows that the tests were highly significant, meaning an association between region and each of the variables can be concluded. As a result, looking at vaccinations by region is significant when identifying disparities for vaccinations.

Vaccination Data by Region

Vaccination Data by Race

Analysis
We compare the two sets of data we have to see the impact that pop-up vaccinations made in terms of equity of vaccinations. First, when we look at vaccinations for Cuyahoga County as a whole, Table 1 shows that the distribution of vaccinations between suburbs and the City of Cleveland did not vary greatly. However, when we look at vaccinations based on race, we can see that after February, the distribution of vaccinations is much more equitable by race. To see if the February implementation of Pop-Ups directly affected the vaccination rates, we looked at data specifically from a sample FQHC to compare vaccinations from their Pop-Up sites to their Clinical sites. Similarly, we can conclude that the distribution of vaccinations is similar by region, but drastically different based on race. As a result, we can see that vaccine equity is attributable to Pop-Up sites.

Limitations
This study was conducted using data from one sample FQHC, and thus may not represent all of the FQHCs in Cuyahoga County. Furthermore, data for race and population may be incomplete, since race is often left blank on vaccination forms and population is often incomplete due to the nature of census data.

Public Health Implications
Over the past four months, a number of developments have occurred on the front of vaccines and vaccination sites. While efforts have been made to improve vaccine in Cuyahoga County, it is evident that racial disparity is still a major concern when it comes to public health efforts and more policy efforts are necessary to ensure equity. Furthermore, pop-up vaccinations are one of many efforts that FQHCs have put forth to address disparities in vaccinations. Other FQHCs, for example, have focused on connecting their patients with mass vaccination sites to improve overall vaccination rates.