

Rapid Response for COVID-19 Pandemic: A Vaccination Clinic Layout

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INTRODUCTION

In 2020, the World Health Organization declared a pandemic for the virus named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), commonly called coronavirus or COVID-19, referring to the disease it causes. It is transmitted mainly through respiratory droplets from an infected individual, although other forms of transmission include airborne transmission (aerosol) and fomite transmission from contaminated surfaces. [1] By December 2020, the Health Department of Puerto Rico reported 71,650 confirmed cases of COVID-19 with 1,503 confirmed deaths. [2] Around this date, Emergency Use Authorization of the COVID-19 vaccine was approved by the Food and Drug Administration (FDA). The Centers for Disease Control and Prevention and Health Department of Puerto Rico established guidelines and requirements for designing school-located vaccination (SLV) clinics, including the use of personal protective equipment for every personnel and volunteer working on it. [3] The Health Department of Puerto Rico offered a workshop on the Management and Administration of COVID-19 vaccine for healthcare professionals willing to participate as responders in the vaccination process on the island. After the Pfizer-BioNTech COVID-19 vaccine received the first emergency use authorization by the FDA in the United States on December 11, 2020, faculty members and leaders of the student body of the UCC got together virtually to work on developing an SLV clinic. UCC clinic started vaccinating once Puerto Rico received doses and managed to implement a way of fulfilling the nearby communities' needs following the guidelines such as social distance and clinic flow.

MATERIALS & METHODS



Figure 1. Logistic Preparation for Clinic Day

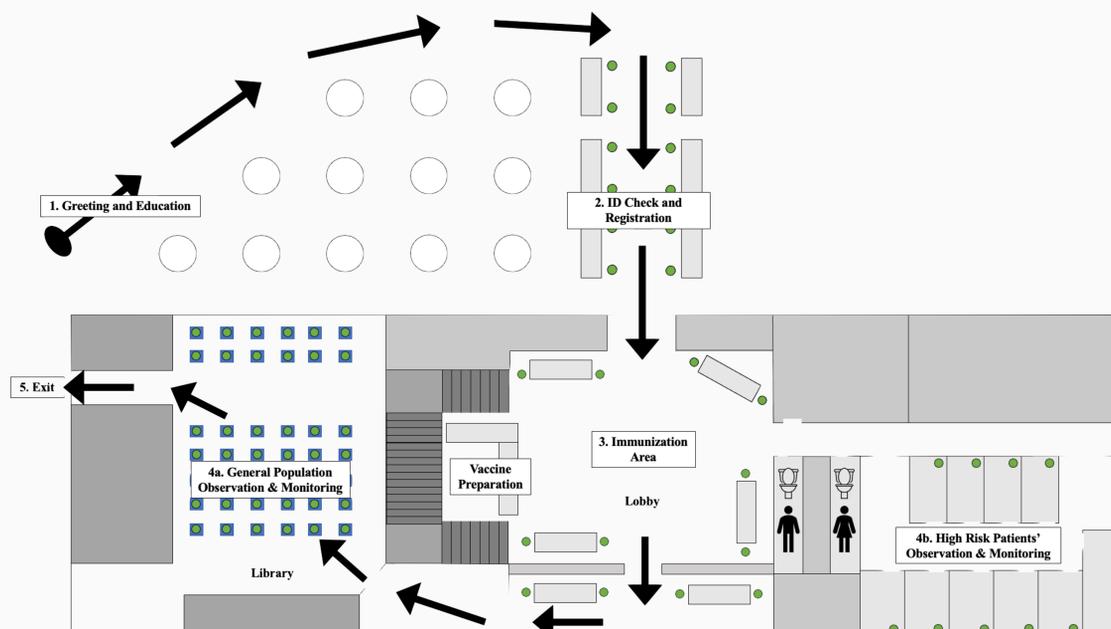


Figure 2: UCC Vaccination Clinic Layout for ambulant participants (Dec. 2020 - May 2021)

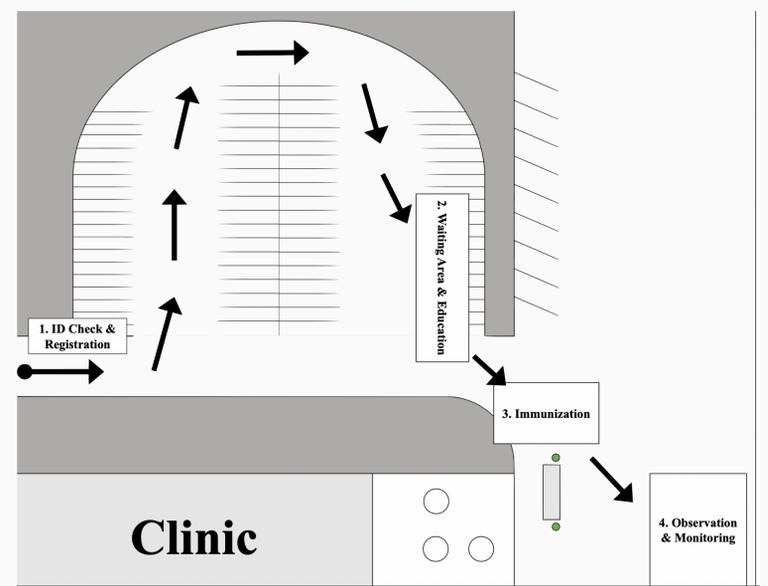
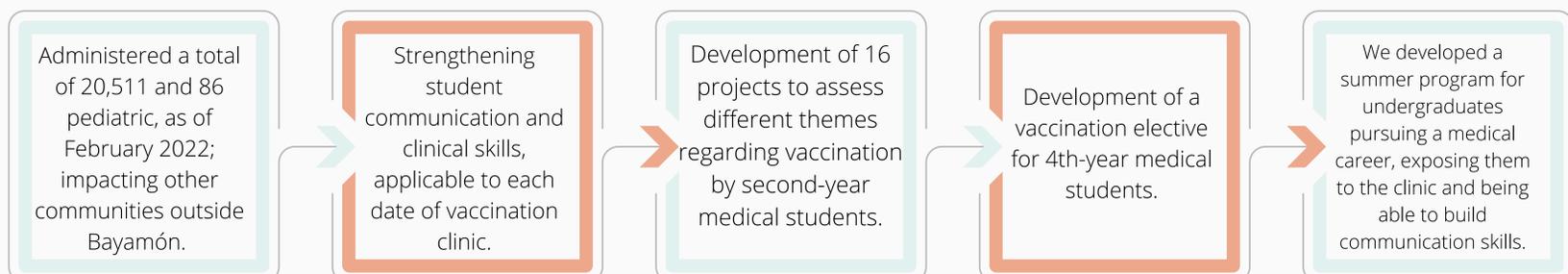


Figure 3: UCC Vaccination Clinic Layout for Drive Through Participants (Jan. 2021 - Mar. 2021)

RESULTS



DISCUSSION

The evolution of the vaccination clinic resulted from a trial and error basis. Every obstacle encountered leads us to explore new options and innovate our problem-solving skills constantly. Every detail of the design and each of our committees was key to achieving the obtained results. The clinic layout and logistic plan developed from the welcoming of the participants to the vaccination table and observation area proved to be an efficient plan for a school-based vaccination clinic by allowing for immunizing up to 600 participants per day. Proactive communication within the committee, trained volunteers, clinics reunions that searched for areas of improvement, the clinic layout, the online sign-up, and incorporation of undergraduate students into the volunteers were essential components that helped us achieve the clinic's purpose. While the clinic design was efficacious, enhancement in the recruitment of pediatric participants is still achievable. Even with evidence-based vaccine approval for 5-11 years individuals, the clinic struggled with hesitancy from their parents. For future works, it is essential to engage with this community focusing on the education about the vaccine and how the pros outweigh the cons.

REFERENCES

- Casella M, Rajnik M, Aleem A, et al. Features, Evaluation, and Treatment of Coronavirus (COVID-19) [Updated 2022 Feb 5]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554776/>
- Departamento de Salud Informe de Casos covid-19 - salud.gov.pr. <https://www.salud.gov.pr/CMS/DOWNLOAD/4174>. Accessed February 22, 2022.
- Guidance for planning vaccination clinics. Centers for Disease Control and Prevention. <https://www.cdc.gov/vaccines/hcp/admin/mass-clinic-activities/index.html>. Published July 23, 2020. Accessed February 22, 2022.

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