**ABSTRACT**

Madison Park Neighborhood Association (MPNA) was formed in 1987 to serve Santa Ana, CA, and founded Getting Residents Engaged in Empowering Neighborhoods (GREEN) in 2011. MPNA-GREEN’s two main objectives are (1) supporting youth and families to pursue educational and leadership opportunities and (2) improving health equity outcomes. In 2021, MPNA-GREEN Medical Academy functioned as a standalone program targeted at SAUSD students. One of the major limitations was student retention especially when they felt overwhelmed with involvement in parallel STEM Academy. In 2022, the program is integrated into the STEM Academy, specifically the elementary component. Hands-on components return to this year’s programming, with in-person sessions in late Spring 2022. Gaining support from community members translates as consistent involvement in other MPNA-GREEN efforts into the STEM Academy, specifically the elementary component. Hands-on components return to this year’s programming, with in-person sessions in late Spring 2022. Gaining support from community members translates as consistent involvement in other MPNA-GREEN efforts.

**BACKGROUND**

**MPNA-GREEN & Santa Ana, California**

- Collaborations with the Santa Ana Unified School District, The City of Santa Ana, James Madison Elementary School, and University of California, Irvine.
- Involved in the Santa Ana Building Healthy Communities (SABHC) initiative.
- Young, predominantly Hispanic/Latino population, with 44% under age 25 and 94% Hispanic/Latino.
- The aggregate median income falls below 200% of the Federal Poverty Level, and 99% of elementary students qualify for Free/Reduced Price Meals.

**Santa Ana Unified School District**

- Madison Elementary School - Principal Lisa Solomon
- 1,055 students in grades K-6
- % students at appropriate math proficiency is 29% (vs California average of 40%) for the 2018-19 year

**Medical Pipeline Program**

- Minorities are under-represented in the healthcare workforce, in particular physician roles where they can make a significant impact on community health. Providing mentorship and early exposure is a way of normalizing pursuit of STEM and medical careers.

**OBJECTIVES**

- Support STEM-focused Saturday Academy program with mentorship
- Integrate Medical Academy curriculum blocks (CARDIO/PULM, GI, NEURO, MUSCLE/KINESIA) into Science Academy
- Create medical correlate educational material for technology, engineering, physical sciences blocks
- Mental Health component – two separate lectures on Depression & Anxiety in youth
- Incorporation of medical-themed rewards into participation

**METHODS**

- Recruitment of volunteer physicians, residents, medical students through UCI Health System and UC Irvine School of Medicine
- Undergraduate Mentor Recruitment: UCI & UCLA (MPNA-GREEN)
- Academic Background
  - Engineering
  - Physical Sciences
  - Pre-Medical
- School: Madison Elementary School
- Enrollment: Parental Permission through Site Contacts
  - Principal Solomon
  - Dr. Zaldivar
  - Jose Rea
- Destiny Macias
- Curriculum Delivery:
  - Zoom (pre-April 30) – PowerPoint lectures, breakout sessions, Google Classroom
  - In-Person (April 30 and on) – Supervised experiments, Medical sessions (field trip to UCI Medical Center, postponed for 2021 and 2022)
  - Pre-Recorded Lectures – Mental Health lectures on Depression and Anxiety

**RESULTS**

- On average 38 students per session at the elementary school level.
- Middle and high school programs at most had 15 participants per session.
- Prizes are effective in increasing active participation during sessions and student retention.
- Engagement in Zoom platform remained high although issues impacted participation:
  - Four internet connection limited participating to text in chat (no camera or voice)
  - Unable to assist students who require one-on-one guidance
- In-Person sessions provided more interactive and improved student group collaboration (vs Zoom breakout sessions) and participation.
- Some Zoom experiments required supply pick-up at school (Madison) to offset this
- Integrating mental health topics requires more discussion with MPNA-GREEN for future curriculum.

**CONCLUSIONS**

- Integrating curriculum additions into a successful STEM program ensured participation was not affected by competing programs.
- MPNA-GREEN long-standing history with community and institutions play into parental support in enrolling youth in associated programs.
- Ongoing connections with college students and medical students especially those of URIM background leave a significant impression on youth.
- Incentives geared toward medical careers motivated students to participate more frequently, consistent attendance.
- Collaborations with Santa Ana residents (new medical students) and medical faculty are effective in the quality improvement of programs and providing clinical validity.

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- Destiny Macias