


Community based participatory research as a promising practice for addressing vaccine hesitancy, rebuilding trust and addressing health disparities among racial and ethnic minority communities

Sophie E. O'Bryan^a, Fatima Muñoz^b, David Smith^a, Adriana Bearse^c, Blanca Melendrez^c, Biren Kamdar^d, Cynthia James-Price^e, Daniel Ramirez^b, and Argentina E. Servin ^a

^aDepartment of Medicine, Division of Infectious Diseases and Global Public Health, University of California, San Diego, La Jolla, CA, USA; ^bHealth Support Services, San Ysidro Health, San Ysidro, CA, USA; ^cUC San Diego, Center for Community Health, University of California, San Diego, La Jolla, CA, USA; ^dDivision of Pulmonary, Critical Care and Sleep Medicine, UC San Diego School of Medicine, La Jolla, CA, USA; ^eMulticultural Health Foundation, San Diego, CA, USA

ABSTRACT

The COVID-19 pandemic disproportionately affected racial and ethnic minority communities across the United States (U.S.). Despite the disproportionate burden of COVID-19 faced by communities of color, Black and Hispanic communities are less likely to be fully vaccinated than White non-Hispanic Persons. Health inequity and vaccine hesitancy are complex phenomena that require multilevel responses tailored to the unique needs of each community, a process that inherently necessitates a high level of community engagement in order to develop the most effective health interventions. Building on the principles of community based participatory research (CBPR) and with the support of the National Institutes of Health (NIH), *Project 2VIDA!* was born. A multidisciplinary collaborative of academic researchers, community members, and clinicians whose aim is to foster sustainable partnerships to reduce the burden of COVID-19 in Hispanic and Black communities across Southern California. Our model was designed to meet our community members where they were – whether on their lunch break or picking their children from school. This CBPR model has been well received by community members. Future health interventions focused on reducing health disparities should prioritize the role of the community, leverage the voices of key community partners, and be grounded in equitable power sharing.

ARTICLE HISTORY

Received 13 January 2024
Revised 20 February 2024
Accepted 1 March 2024

KEYWORDS

COVID-19; community-based participatory research (CBPR); racial and ethnic minorities; health disparities; public health

The disproportionate impact of COVID-19 on racial and ethnic minority groups

The COVID-19 pandemic has disproportionately affected racial and ethnic minority communities across the United States (U.S.). Today, Hispanic and Black Americans are hospitalized from COVID-19 at 1.8 and 2.1 times the rate of White Non-Hispanic persons, and continue to have a COVID-19 death rate that is 1.7 and 1.6 times higher, respectively.¹ The COVID-19 pandemic reinforced our understanding that disease does not discriminate, but our social, medical, and economic systems do, with minority communities being more likely to experience social determinant of health (SDOH) risk factors including lower socioeconomic status and lower access to health services.



Despite the disproportionate burden of COVID-19 faced by communities of color, Black and Hispanic communities are less likely to be fully vaccinated than White non-Hispanic Persons.^{2,3} Hispanic individuals are more likely to have vaccination distrust and hesitancy for various reasons including unequal access to health care and the lack of reliable culturally and linguistically competent information. Black individuals are more likely to have a lack of trust in medical establishments as a result of past medical racism and experimentations. Further, Black and Hispanic individuals have reported higher

levels of perceived discrimination and medical mistrust than White Non-Hispanic persons.⁴ These high levels of generalized mistrust are rooted in the historical exploitation and persecution of people of color within the U.S. healthcare system, all contributing to vaccine hesitancy.

CBPR to emend health disparities

Health inequity and vaccine hesitancy are complex phenomena that require multilevel responses tailored to the unique needs of each community – a process that inherently necessitates a high level of community engagement, input, and participation in order to develop the most effective health interventions. We think a Community Based Participatory Research (CBPR) approach could be most effective in reducing health disparities and vaccine hesitancy. CBPR represents a shift from traditional researcher-driven practices and prioritizes community involvement and equitable power sharing between community members, academic researchers, and clinicians in all aspects of the research process, from identification of key needs and barriers to intervention development and delivery.⁵

During the COVID-19 pandemic, the importance of community has become even more accentuated in our daily lives.

CONTACT Argentina E. Servin  arservin@ucsd.edu  Department of Medicine, University of California, San Diego, 9500 Gilman Drive, MC 0507, La Jolla, CA 9209, USA.

People relied on their local health care providers for care, friends and families for emotional support, and local stores for food and personal protective equipment. Such community-based efforts provide an enormous opportunity to improve health. For example, partnerships between academic institutions, health centers and community-based organizations (CBOs) represent an invaluable opportunity to translate evidence-based interventions and integrate health resources into accepted community spaces, foster trust, and disseminate health information and resources in a culturally competent manner.

Project 2VIDA: combating vaccine hesitancy through community mobilization

Utilizing CBPR principles and with the support of the National Institutes of Health (NIH) we organized *Project 2VIDA!* (Project 2VIDA! SARS-CoV-2 Vaccine Intervention Delivery for Addults in Southern California)⁶ a multidisciplinary collaborative of academic researchers, community members, and clinicians whose aim is to foster sustainable partnerships to reduce the burden of COVID-19 in Hispanic and Black communities across San Diego County. We successfully collaborated with local groceries stores, farmers markets, CBOs, schools, and faith-based organizations to host free pop-up community clinics providing equitable access to COVID-19 vaccines and other health services. Our model was designed to meet our community members where they were – whether on their lunch break, shopping for groceries or picking their kids up from school. Such ease of access reduced the structural and temporal barriers to care while simultaneously showing communities respect and care about what works best for their needs. This community-based, pop-up clinic model has been well received by community members, many who are still skeptical of the U.S. healthcare system. Throughout this project, we saw notable increases in requests from CBOs and community members for collaboration, building trust and empowerment in CBPR activities.

Guided by the principles of CBPR, we designed *Project 2VIDA!* a multilevel intervention informed by the National Institute on Minority Health and Health Disparities (NIMHD) research framework⁷ that centers on providing COVID-19 individual awareness and education, COVID-19 Community Outreach and Health Promotion, linkage to medical and supportive services, and offering the COVID-19 vaccine through community pop-up clinics across predominantly Black and Hispanic communities in Southern California. This has facilitated multiple health resources into trusted community spaces. On site, *Project 2VIDA!* is staffed by bilingual clinicians, *promotoras*, and health educators who provide information on health care coverage, affordable transportation, food security programs, and housing resources. Although the main goal of our pop-up community clinics is to provide equitable access to the COVID-19 vaccine, when a community member visits, we strive to provide as many resources as possible. We shifted our focus from preventative health services in a traditional clinical setting to delivery of

comprehensive health resources in trusted community spaces. Creating compassionate and nonjudgmental spaces for patients to voice concerns further enhanced our understanding of individual and community needs. To date, we have conducted 118 pop-up community clinics, recruited 1052 participants in the study, and provided 2, 210 COVID-19 vaccines. Through the COVID-19 individual awareness and education and the COVID-19 Community Health Outreach and Health Promotion efforts, we have reached over 20, 000 individuals across the targeted communities. Additionally, *Project 2VIDA!* connected community members to over 5,676 health services, ranging from free provider visits, blood pressure and diabetes screenings, to HIV testing and behavioral health resources. Community members are grateful and keen to contribute health data to improve understanding of community health and SDOH on outcomes.

Though one of the greatest public health threats in modern times, the COVID-19 pandemic presented an invaluable opportunity to design and implement interventions aimed at understanding and addressing health inequities and SDOH. We learned that sustainable community partnerships are vital to address the disproportionate burden of COVID-19 on underserved communities. We also learned that CBPR represents an opportunity to reduce health care inequities by amplifying the voices of underserved communities. We call on academic intuitions to recognize the powerful role communities play in reducing health disparities and encourage them to play an active role in developing robust and sustainable partnerships. As the pandemic evolves, the challenge will shift from designing and implementing the CBPR framework to address health care inequities related to COVID-19, to adapting and sustaining the framework to address future infectious diseases and public health issues. Future health interventions focused on reducing racial and ethnic health disparities should prioritize the role of the community, leverage the voices of key community partners, and be grounded in equitable power sharing.

Acknowledgments

The authors would like to extend a special gratitude to the Black and Hispanic community members who participated in this study and who contributed to this research. The authors also gratefully acknowledge the entire multidisciplinary research team involved in this project, the San Diego County Health and Human Services Agency (HHS), San Ysidro Health (SYH), Dr. Suzanne Afflalo, Dr. Elizabeth Reed from San Diego State University (SDSU), the Community Advisory Board (CAB) of the Health Equity Sociobehavioral Science Core of the San Diego Center for AIDS Research (CFAR) for their continuous support for the project. Likewise, we would also like to thank all the community organizations that support this project including the San Ysidro Chamber of Commerce, Grocery Outlet, Northgate Gonzalez Market, Soul Swapmeet, Jackie Robinsons Family YMC, Chicano Federation, El Dorado Clinic, Lincoln High School, Community Health Works, Southwestern College, Union of Pan Asian Communities (UPAC), the Multicultural Health Foundation, and the San Diego Housing Commission.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the National Institutes of Health (NIH)/ National Institute on Minority Health and Health Disparities (NIMHD) Grant Number: R01MD016872 (PI: Servin).

ORCID

Argentina E. Servin  <http://orcid.org/0000-0001-5523-7767>

Ethics statement

The study protocol was submitted, reviewed, and approved by the Human Research Protections Program (HRPP) at the University of California, San Diego (UCSD) (Project #: 210630S) and the *Ad hoc* Institutional Review Board (IRB) reliant IRB from San Ysidro Health (SYH) (SYH Registration Project Number: RHP-R-041221-56). Approval is sought from all ethics committees for amendments and annual reviews, which are currently approved through April 3, 2024. All individuals provided verbal consent prior participation in this study. Any modifications to this protocol will be reported to and approved by all ethics committees, updated in the trial registry, and disclosed during dissemination of results.

References

1. Risk for COVID-19 infection, hospitalization, and death by race/ethnicity. Centers for Disease Control and Prevention [accessed 2023 Nov 3]. <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>.
2. Latest data on COVID-19 vaccinations by race/ethnicity. Kaiser Family Foundation; 2022 [accessed 2023 Dec 28]. <https://www.kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-by-race-ethnicity/>.
3. Trends in demographic characteristics of people receiving COVID-19 vaccination in the United States. Centers for Disease Control and Prevention; 2023 [accessed 2023 Dec 28]. <https://covid.cdc.gov/covid-data-tracker/#vaccination-demographics-trends>.
4. Morgan KM, Maglalang DD, Monnig MA, Ahluwalia JS, Avila JC, Sokolovsky AW. Medical mistrust, perceived discrimination, and race: a longitudinal analysis of predictors of COVID-19 vaccine hesitancy in US adults. *J Racial Ethn Health Disparities*. 2022;10:1846–1855. doi:10.1007/s40615-022-01368-6.
5. What is CBPR? The Detroit Community-Academic Urban Research Center [accessed 2023 Dec 28]. <https://detroiturc.org/about-cbpr/what-is-cbpr>.
6. Skaathun B, Saling L, Muñoz FA, Talavera GA, Smith DM, Stockman JK, O'Bryan SE, Ramirez D, James-Price C, Servin AE. Study protocol: project 2VIDA! SARS-CoV-2 vaccine intervention delivery for adults in Southern California. *Front Public Health* doi:10.3389/fpubh.2024.1291332. In-Press.
7. National Institute on Minority Health and Health Disparities (NIMHD). NIMHD research framework; 2017 [accessed 2024 Feb 16]. <https://www.nimhd.nih.gov/about/overview/research-framework/nimhd-framework.html>.