

# A three-tiered approach to address barriers to COVID-19 vaccine delivery in the Black community



Deaths attributable to COVID-19 continue to increase disproportionately in Black and Brown communities.<sup>1</sup> Specifically, Black people represent 14.8% of all COVID-19 mortalities in the USA, which is greater than the proportion of Black individuals in the US population (13.4%). This disparate outcome is heavily attributed to the inter-relationship between structural racism and the social determinants of health inequities.<sup>1,2</sup> The availability of COVID-19 vaccines are positioned to change these inequalities; however, decades of institutional distrust and inadequate access to health care, and ultimately, the absence of transparency in vaccine allocation to heavily disparaged areas, leave Black communities at a disadvantage.<sup>2-5</sup> In the USA, particularly in California, the delivery of COVID-19 vaccinations to Black individuals continues to lag significantly behind that of their non-Hispanic white counterparts.<sup>5,6</sup> Medicare or other health insurance companies can cover the costs of vaccine administration, but vaccines are available to individuals free of charge. Loma Linda University (CA, USA) currently serves as the largest vaccination site in the San Bernardino County of southern California. Similar to other country-wide vaccination efforts, the Loma Linda University mass vaccination clinic is located in a suburban area, with appointments made online. Using this strategy, the Black community has been under-represented, as only 833 (3.6%) of 23 170 individuals who received their first vaccine dose over a 30-day period were Black (table). Even though there has been an increase in the number of Black individuals served at this mass vaccination clinic over time, a more proactive approach is clearly required.

In an effort to reach the Black community more effectively, Loma Linda University developed a three-tiered approach to establish a mobile vaccination clinic. This approach included the engagement of Black faith leaders, the delivery of education about COVID-19 vaccinations by a Black health-care professional, and the development of a multidisciplinary mobile vaccination effort, by holding the vaccination clinic in a church parking area in a mostly Black community.

The USA is considered a highly religious nation, and prayer, as well as the promotion of medical treatment by

religious leaders, has been shown to be very important in establishing trust in health care by Black people.<sup>7,8</sup> Leveraging a relationship with two organisations (the Inland Empire Concerned African American Churches [IECAAC] and the Congregations Organized for Prophetic Engagement), comprised of 20 churches dedicated to confronting prominent issues in the Black community, Loma Linda University organised a COVID-19 faith summit, which included a comprehensive COVID-19 information session to gain the pastors' support of the available vaccines. After the summit, the pastors advertised and coordinated educational webinars about the COVID-19 vaccinations, distributed registration paperwork, and managed appointment lists for their community members before they attended the vaccination clinic. The Black pastors' leadership was integral to the success of this initiative, as they are well acquainted and had established direct communication with individuals in the Black community.

The medical establishment in the USA has a long history of discrimination and exploitation against Black individuals. This discrimination has resulted in lasting negative effects, such as health-care hesitancy and distrust, which are deeply engrained in the consciousness of the community.<sup>3</sup> Nevertheless, it has been shown that the delivery of medical information

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|   | Loma Linda University mass vaccination clinic (n=23 170)* | Mobile vaccination community clinic (n=417)† | San Bernardino County population (n=2 180 085) |
|---|---|--|--|
| Black                                     | 833 (3.6%)  | 351 (84.2%)                                  | 168 946 (7.8%)                                 |
| American Indian or Native Alaskan         | 109 (0.5%)  | 1 (0.2%)                                     | 7955 (0.4%)                                    |
| Native Hawaiian or other Pacific Islander | 38 (0.2%)   | 1 (0.2%)                                     | 6545 (0.3%)                                    |
| Asian                                     | 3474 (15.0%)  | 4 (1.0%)                                     | 157 172 (7.2%)                                 |
| Latinx                                    | 3021 (13.0%)  | 31 (7.5%)                                    | 1 186 808 (54.4%)                              |
| White                                     | 12 819 (55.3%)  | 14 (3.4%)                                    | 591 879 (27.0%)                                |
| Other                                     | 792 (3.4%)  | 10 (2.4%)                                    | 4572 (0.2%)                                    |
| Unknown                                   | 2005 (8.6%)   | 5 (1.2%)                                     | NK   |
| Mixed ethnicity                           | NK  | NK   | 56 208 (2.6%)                                  |

Data are n(%). Only data for first COVID-19 vaccine doses are shown. NK=not known. \*Data were extracted on Feb 21, 2021; includes data from 30 days of vaccinations. †Data were extracted on Feb 20, 2021; includes data from 1 day of vaccinations (administered on Feb 6, 2021).

**Table: Ethnicity of individuals vaccinated at the mass vaccination clinic versus the mobile community vaccination clinic in San Bernardino (CA, USA)**

from practitioners with similar identities to patients can lead to improved communication, translating to the development of trusting relationships.<sup>9</sup> Recognising the need for intentional education measures to decrease COVID-19 vaccine hesitancy, a Black pharmacist with specialised infectious disease training provided several COVID-19 vaccination webinars to the members of the Black community before the mobile vaccination clinic date. This pharmacist also managed transportation of the vaccines to the clinic and ensured that each vaccine was properly drawn from the vials before administration to individuals during the clinic visits. These efforts resulted in establishing a trusting environment of familiarity among the Black faith leaders and community members.

There are various barriers to vaccination that disproportionately affect Black communities, such as limited access to the internet, a computer, and transportation, which make systems that rely on online scheduling and travel difficult to access.<sup>10</sup> Our mobile vaccination clinic was held on the grounds of an IECAAC-affiliated church, providing a location close in proximity to, as well as a familiar and familial atmosphere for the Black community members being vaccinated. Additionally, we used a completely paper-based registration process, with each individual being assigned a unique registration identification number, to ensure that internet access was not a barrier. The mobile vaccination clinic vaccinated a total of 417 people, 351 (84.2%) of whom were Black. Notably, the proportion of Black individuals served by the Loma Linda University mass vaccination clinics increased from 3.0% to 3.6% in the week following the mobile clinic, which could potentially be attributed to the promotion of the mass vaccination clinic during the mobile vaccination effort (table).

In conclusion, the equitable allocation of the COVID-19 vaccines is essential to confronting the racial disparities magnified by the current pandemic. Strategies to reach

the Black community include: engagement of Black faith leaders; promotion of vaccine education by Black health-care professionals; and increasing accessibility of vaccination clinics by holding them in Black communities, so that online registration and scheduling are avoided.

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