Reaching Undocumented Migrants with COVID-19 Vaccination

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Access to vaccination against a health threat such as that presented by the COVID-19 pandemic is an imperative driven, in principle, by at least three compelling factors: (1) the right to health of all people, irrespective of their status; (2) humanitarian need of undocumented migrants, as well as of others including documented migrants, refugees and displaced people who are sometimes vulnerable and living in precarious situations; and (3) the need to ensure heath security globally and nationally, which in the case of a global pandemic requires operating on the basis that, for vaccination strategies to succeed in fighting a pandemic, the highest possible levels of vaccine uptake are required. Yet some population segments have had limited access to mainstream health systems, both prior to as well as during the COVID-19 pandemic. People with irregular resident status are among those who face extremely high barriers in accessing both preventative and curative health care. This is due to a range of factors that drive exclusion, both on the supply side (e.g., systemic and practical restrictions in service delivery) and the demand side (e.g., in uptake, including due to fears that personal data would be transmitted to immigration authorities). Moreover, undocumented people have often been at increased risk of infection due to their role as “essential workers”, including those experiencing higher exposure to the SARS-CoV-2 virus due to frontline occupations while lacking protective equipment. Often, they have also been largely left out of social protection measures granted by governments to their populations during successive lockdowns.

undocumented migrants COVID-19 vaccination supply- and demand-side access barriers equitable access

1. Introduction

Around the world, migrants and refugees often experience a wide range of formal and informal barriers to accessing health services [1][2]. This is especially the case for people with irregular residence status, or ‘undocumented’ migrants—i.e., non-nationals who enter or stay in a country without the appropriate documentation [3][4]. Barriers were often increased by constraints imposed in the course of efforts to contain the COVID-19 pandemic [5][6], within the broad variety of national adaptation policies [7] that were rapidly established as the emergency unfolded. These included restrictions on movement and assembly, as well as reductions in opportunity for employment, especially in the informal sector. Many services were transferred online, including a preference where possible for virtual consultations with health professionals. Undocumented migrants may lack the necessary hardware, software or connectivity to engage in such consultations [8], or not have the required health service registration or credentials to qualify for accessing the online booking systems.

Barriers to accessing health services are of particular concern in the case of undocumented migrants because past experiences and current situations often increase their susceptibility to disease and vulnerability to a range of health threats. These may arise from their living conditions, which may be overcrowded and lacking adequate sanitary facilities; from food insecurity, reliance on public transportation for mobility, absence of locally accessible medical services, communication barriers between physicians and im-migrant patients that limit access to health information and services (including key messages on COVID-19 prevention and health-seeking behaviour), and digital illiteracy and/or communication barriers that limit access to telemedicine [9][10][11][12]. Moreover, environmental factors, such as long-term average exposure to fine particulate matter having a diameter of less than 2.5 μm (PM2.5), may also influence COVID-19 outcomes [13]. Working conditions are a further important factor contributing to vulnerability. These may be poorly paid, poorly regulated and lacking adequate safety features, or involve exposure to physical, chemical or biological hazards. Migrants and refugees in some countries are concentrated in “essential” areas of work, such as in transport and in health and welfare services, as well as in hospitality and cleaning services, in all of which there are elevated risks of infection [14][15]. Owing to their precarious status, many continued to work to survive during the COVID-19 pandemic. However, they often struggled to follow measures to protect themselves from the virus, often with limited access to adequate in-formation, protective equipment or ability to physically distance.

2. COVID-19 Vaccination and Undocumented Migrants: Some Country and Regional Experiences

From the first licensing of a Coronavirus vaccine in a Western country in December 2020, there was intense competition for available supplies at the international level leading to 'vaccine nationalism' [16][17] and often strict regulation of the timing of provision of vaccine doses at national and local levels, generally with emphasis on priority for vulnerable groups at risk of severe disease (e.g., persons who are older, with certain preconditions, chronically ill or immunocompromised) and frontline health personnel and other key workers. Globally, WHO's Strategic Advisory Group of Experts suggested a tiered system to prioritize who should receive the vaccines, and identified low-income migrant workers, irregular migrants and those unable to physically distance themselves, including those living in camps and camp-like settings, as being among priority groups for the allocation of COVID-19 vaccination [18]. International organizations conducted advocacy work with governments to raise awareness about the obligations of States to include migrants in official vaccination plans [19][20]. At the European level, the European Centre for Disease Prevention and Control (ECDC) issued a report in December 2020 on COVID-19 vaccination and prioritization strategies, which included recognition of the vulnerability of groups with little ability to ensure physical distancing, including those living in migrant centres [21]. A later ECDC report [22] recommended strategies to increase vaccination uptake among migrant populations, including culturally and linguistically tailored and targeted public health messaging, co-designed with affected communities, translated into key migrant languages and effectively disseminated. UNHCR noted [19] that, by April 2021, 153 States had adopted vaccination strategies that include refugees, but that, in many parts of the world, actual immunization remained a challenge, largely due to the unequal availability of vaccines and the capacity of health systems to deliver them.

Given that reaching some migrant populations for routine vaccinations was problematic even before the arrival of the COVID-19 pandemic [23][24], how did undocumented migrants actually fare in those countries and regions where vaccines were becoming available? A scan of available data from European countries, the USA and South Africa revealed an extremely fragmented and incomplete picture, with diversity in policies and strategies as well as in practices, making the logistics of obtaining vaccination very challenging for many people. This section provides a sampling of the spectrum of local situations in these countries. A further scan of reports from other parts of the world, including Asia, the Caribbean and Latin America as well as OECD countries, showed very similar situations in these regions too [25][26][27].

2.1. Europe

Outside of emergency situations and other limited cases, a variety of types of obstacles to accessing primary health care and other services are encountered by undocumented migrants in most countries of the EU. They include formal limitations on entitlements to services and, even in those countries which have schemes in place for undocumented residents, there are often challenges in practice (e.g., administrative barriers, complex procedures, unclear rules). Pervasive fear of authorities is often present, because of their history of prioritizing immigration status in granting entitlements and the direct immigration enforcement consequences of accessing mainstream health care. The risk of immigration enforcement relates to the broader policy environment, which in many countries criminalizes irregular status with the aim of expulsion and may also criminalize those who assist undocumented people, in order to deter irregular migration. The exclusion and mistrust created have important consequences for the COVID-19 vaccine rollout, both for the provision of and the choice to access vaccination.

As vaccines began to be rolled out, international organizations including the International Organisation for Migration (IOM) and European Union (EU) bodies including the ECDC and European Commission (EC) recommended addressing marginalized communities, including migrants in situations of vulnerability, in national vaccination strategies. However, national approaches in Europe varied substantially with respect to undocumented migrants [28]. Moreover, even where vaccination was officially available, if undocumented status was criminalized, many would avoid contact with government bodies, despite feeling unwell or being at risk of severe illness [29][30].

A study by the Pew Research Center [31] published in 2019 estimated that 3.9–4.8 million migrants (including asylum seekers awaiting decision on their status) were living undocumented across Europe in 2017. Excluding asylum seekers, the estimate was 2.9–3.8 million undocumented migrants. By either estimate, half the undocumented migrants were in Germany and the UK and over 70% were in those two countries as well as France and Italy. Expanding the list to include the Czech Republic, Greece, Spain and Switzerland covered 90% of the undocumented migrants in Europe.

The following sampling profiles the situation regarding COVID-19 vaccination of undocumented migrants in the four countries where they are estimated to be present in the largest numbers (France, Germany, Italy, UK) and also highlights some examples of important policies and practices from other European countries, which also host undocumented migrants, that indicate potential for successful strategies to extend vaccination to these people.

2.1.1. France

The French health ministry affirmed [32] in January 2021 that vaccines would be available, free for all, regardless of residence status and with no requirement for a health insurance card, to all people living in France [33]. COVID-19 vaccination followed a 5-stage plan, with early stages prioritizing individuals based on their age and extant, high-risk comorbidities. The

recommendations for prioritization of vaccinations [34] did not refer to undocumented migrants, but identified people in precarious situations as a target group to obtain the vaccine, although without according it a high priority, as these populations were not scheduled until Stage 4 in the vaccination national plan. Vaccination was non-mandatory and free for everyone and did not require residence papers, identity documents or public health insurance. It could be booked online or by phone, but PICUM's situation report on France in October 2021 [35] referred to cases where some operators were unaware of the regulations and refused to book an appointment because a health insurance number could not be supplied. Some local health authorities allocated funding to the vaccination centres to operate mobile medical teams to visit locales where people in precarious situations live. A number of NGOs also operated mobile teams, either to provide vaccinations or for information and awareness raising [36].

The French National Public Health Agency developed an evidence-based vaccination strategy for individuals living in precarious conditions by a knowledge mobilization process for implementation in 2021. This approach facilitated the co-development of a COVID-19 information tool accessible to social workers and health mediators and provided a collective overview of the interdependent social and health issues, notably via a collective consultation process, to better understand difficulties in vaccinating populations without social security numbers [36].

While data protection is strong in France and officially there should not be a risk of immigration consequences, in practice fear of this has deterred many undocumented people from getting vaccinated [35]. Other practical barriers that undocumented people have faced in getting vaccinated in France include language (many vaccination points lack interpreters), and lack of adaptation of the vaccination campaign to specific living and working conditions of many undocumented people (e.g., working informally, with long or unsocial hours which are incompatible with the opening hours of the vaccination points). Additional barriers were lack of awareness of the specific basic needs (food and water supply), as well as low health literacy, low perception of the threat of COVID and low perception of the usefulness of vaccination, or circulation of fake news about the vaccines themselves. Access to vaccination has been especially problematic for unaccompanied children, with contributing factors being a variety of administrative barriers (e.g., parental authorization) and use of age assessment procedures that may be biased and inaccurate. Requirement for possession of a certificate of COVID-19 vaccination or negative COVID-19 rapid test in the past 24 h ("health pass" [37] for entry to many places and services (including hospitals) also created challenges for undocumented migrants, in the light of barriers to the vaccines [35]. For instance, while an electronic or paper certificate could be obtained at the time of vaccination, if lost it could be very difficult to obtain a replacement due to administrative hurdles linked to the ad-hoc health number. The complexity of converting 'out-of-country' COVID-19 vaccinations to French vaccination certificates has also created administrative barriers for undocumented migrants.

2.1.2. Germany

Médecins du Monde in Germany noted that, at an early stage in the pandemic, many of their clients had limited access to information (mainly due to language barriers), testing, prevention (e.g., masks, disinfectant, appropriate housing conditions) and treatment [38]. Undocumented migrants in Germany have legal entitlement to restricted health services covering acute illness and pain and other emergency care. However, public authorities, including social service departments which need to be approached for covering the cost of these health services, have a duty to report undocumented persons, who therefore avoid seeking medical care.

Germany's COVID-19 vaccination regulation [38] entitled everybody with habitual residence or registered address in Germany to get vaccinated, prioritizing asylum seekers in the second priority group (after people above the age of 80 and healthcare workers). Undocumented migrants were not explicitly mentioned in the regulation. Subsequently, however, the Ministry of Health confirmed after a parliamentary request that undocumented migrants living in Germany are entitled to vaccination. The duty to report is no major barrier to vaccination in principle, as doctors are excluded from the duty to report and no application for cost coverage is necessary [30][38][39][40]. In practice, however, access to vaccination is very inhomogeneous: often, vaccination as a priority group was only possible with a personal invitation letter, which of course depends on a registered address. Many vaccination centres required a personal ID. Concerns and practical issues remained, most notably around providing proof of habitual residence and around the fear that data could be shared with immigration enforcement authorities.

Against this background, the degree of vaccine hesitancy emerges as a complex picture. A cross-sectional study of Turkish- and German-speaking citizens in Munich reported in 2021 that COVID-19 vaccine hesitancy was much higher among people with migratory backgrounds [41]. However, a wider study reported in February 2022 [42][43][44] observed that, while overall vaccine uptake among people with a migration history was a little lower (84%) than among the rest of Germany's population (92%) at the time, their willingness to obtain a first dose might actually be higher. Factors contributing to vaccine uptake included higher socioeconomic status, higher age, less experience of discrimination in the health care and nursing sector, good knowledge of German, trust in the safety of the vaccination and the health system, and viewing vaccination as a communal measure. Factors contributing to vaccine hesitancy included prior experiences of discrimination and language barriers, as well as false information about COVID-19 and vaccines, which tend to have a higher circulation among immigrant

communities than non-immigrant ones. Significant differences in levels of vaccination were observed between different cities in Germany. Bremen's high rate of vaccine uptake among immigrants was associated with provision of mobile vaccination teams, deployment of health professionals at food banks who speak the immigrants' mother tongues and distribute information material in 12 different languages, and pragmatism in providing vaccinations despite lack of proof of identity.

2.1.3. Italy

The Italian Immigration Act explicitly guarantees access to urgent or essential health care, including vaccination as part of preventive public health care campaigns, to all people living in Italy, including irregular migrants. However, non-Italian citizens received comparatively late diagnosis of COVID-19 and were more likely to be hospitalized and admitted to intensive care, with an increased risk of death in those coming from lower human development index countries [45]. While Italy's COVID-19 vaccination strategy [46] does not mention undocumented migrants explicitly, the Italian Medicines Agency guidelines [47] make clear that undocumented people are entitled to COVID-19 vaccination, in line with inclusion [19] and the right to health.

As the law forbids any health data sharing with police and judicial authorities, undocumented persons are theoretically able to access COVID-19 vaccination without fear of immigration consequences. However, in mid-2021 the online booking platforms, which are managed by Italy's 20 regions, in most cases still required information and documents which were unavailable to most migrants with irregular residence status. Wide variations were seen between regions, with some (e.g., Apulia, Campania, Sicily, Veneto, Lombardy) enabling undocumented migrants to book their vaccinations online. There have also been local initiatives aiming to reach out to undocumented people to vaccinate them. For example, the humanitarian organization Emergency organized COVID-19 vaccination campaigns in the towns of Ragusa and Vittoria for all, especially for undocumented migrant farmworkers [48]. Since the vaccination centres tend to be set up in towns and cities, there remains concern about reaching less accessible undocumented migrants—for example, those who find agricultural work and live precariously in informal dwellings. A study of access to COVID-19 vaccination during the pandemic in the informal settlements of Rome [49] observed in October 2021 that the percentage of vaccinated people there, ranging between 4.4% and 55.5%, was significantly below the vaccination rate of Italy's population (close to 80%), with particular attention needing to be paid to transiting and irregular migrants who were at greater risk of lacking access to vaccination.

2.1.4. United Kingdom

Despite the operation of a 'hostile environment' policy towards migrants for several years [50], the UK's COVID-19 vaccine delivery plan, issued in January 2021, accorded migrants living in the UK eligibility to receive COVID-19 vaccines free, regardless of their legal or undocumented status. Undocumented migrants were not initially cited as a priority group [51], but by the end of the year were being listed as one of a number of at-risk groups being targeted for vaccination [52]. Government guidance stated that no immigration check would be required in the context of the vaccination [53]. The pent-up demand for vaccination was evidenced when thousands of undocumented migrants turned up at a pop-up clinic in the center of London in May 2021, having been encouraged and assured that no details or identity information would be passed on to the police or immigration [54]. A month later, one of the poorest boroughs in London opened a walk-in clinic for people without documents, temporary migrants, asylum seekers and homeless people [55].

However, historical policies towards migrants who do not have 'leave to remain' had generated distrust and insecurity among undocumented migrants and practical barriers remained [56], including from some General Practitioners who would not register undocumented migrants as patients [57]. This made it more difficult to obtain the NHS number needed to book vaccinations, which is mainly done online [58]. A national qualitative interview study completed in March 2021 explored the views of undocumented migrants, asylum seekers and refugees, using the '3 Cs' model (confidence, complacency and convenience) to explore COVID-19 vaccine hesitancy, barriers and access [59]. It revealed concerns over vaccine content, side-effects, lack of accessible information in an appropriate language, lack of trust in the health system and low perceived need. Barriers to accessing COVID-19 vaccination were reported and concerns expressed about being excluded from or de-prioritized in the roll-out. Undocumented migrants described fears over being charged and facing immigration checks on presenting for a vaccine. Those interviewed after the government announced that COVID-19 vaccination could be accessed without facing immigration checks remained unaware of this. Convenience of access was a key factor in deciding whether to accept vaccination, along with accessible information on vaccination.

A survey carried out in May 2021 among UK refugees, asylum seekers, and undocumented migrants [60] found that many cited family and friends as the most common source of COVID-19 vaccine information, with discouraging information from a range of sources acting as significant deterrents to vaccination. Misinformation spread unchallenged as a result of lack of access to reliable information in appropriate languages and formats. As well as worries about the vaccine, there was also distrust in the systems and organizations responsible for its rollout and delivery. Survey participants identified a number of facilitators to increase COVID-19 vaccine confidence and uptake, These included routing reliable information via trusted organizations and individuals, opportunity for discussion with health professionals, access to information resources commensurate with language and literacy needs and in a variety of formats, targeted webinars and public information

sessions, accessible pop-up vaccination clinics in the local community, informed peers and community and religious leaders acting as vaccination champions, involvement of local voluntary, community and social enterprise organizations, communications directly addressing circulating misinformation, and provision of reassurance that data collected for vaccination purposes would not be shared for immigration enforcement.

2.2. South Africa

In general, African countries experienced four waves of COVID-19 infection, typically peaking around July-August 2020, January and July–August 2021 and December 2021–January 2022 [61][62]. At the beginning of March 2022, 11.55 million cases had been reported, the largest component being South Africa's 3.68 million [61][63]. South Africa had reported a total of 99,500 COVID-19 related deaths at that time—a significantly lower death rate than seen in, for example, France or the UK [61].

Lower reported COVID-19 case numbers and deaths in Africa, compared with other regions (only Oceania has a lower death rate), have been linked with a complex variety of factors. These potentially include poor reporting systems, limited testing capacities, public health infrastructures and mitigation strategies, weather conditions, lower volumes of air travel, young populations (median age in Africa is 19.4 years, compared with 40 in Europe and 38 in USA), previous exposure to other locally circulating coronaviruses, malaria co-infection, genetic factors for severe COVID-19 illness, strong political will and swift imposition of lockdowns [64][65][66]. The picture in many African countries when COVID-19 vaccines became available is typified by the example of Uganda [67]. Its government policy made COVID-19 vaccines available to all, including the more than 1.4 million refugees living in the country, but the actual vaccination rate among refugees was very low. As well as vaccine hesitancy, many logistic problems were encountered by refugees, including vaccines not reaching the places where they live and work, administrative hurdles, and insufficient information and outreach targeted to them.

South Africa, a middle-income country with the most industrialized economy in the region, has drawn migrants from many other countries. There were an estimated 2.9 million migrants residing there in 2020 (approaching 5% of the overall population)—the largest number of immigrants on the African continent [68]. Pull factors include opportunities for work in, among other areas, mining, manufacturing and agriculture, and push factors including poverty, adverse climatic changes and weather events and political and physical insecurity in other places.

Numbers of 'undocumented' persons in South Africa are thought to run to millions [69]. Estimates have been difficult to make as migration has long been a politicized issue complicated by xenophobia and waves of violence against immigrants [70][71], with language often framed in the context of 'illegal' persons and health security concerns to justify exclusion. In practice, the category 'undocumented' includes both 'unauthorized migrants' who have entered South Africa without official permits, and those who have entered with authorization but have encountered bureaucratic difficulties and delays in renewing papers [72][73].

Legally, migrants have a constitutional right to health in South Africa. Both legal and undocumented residents have the right to primary care, with the same entitlements being applied to refugees and asylum seekers as for all South African citizens. However, the health system is weak in South Africa and struggles to cope with the demand from the population as a whole. In practice, health care professionals in the country have routinely denied health care and treatment to many asylum seekers, refugees and migrants, with foreign-born residents encountering systematic discrimination in obtaining basic care and access to a range of public health services [74][75][76], including treatment for HIV and tuberculosis infections whose incidences are high in the southern African region.

South Africa's response to COVID-19 reflected this history, with initial reticence to include asylum seekers, refugees and foreign migrants in policies and mechanisms to deal with the pandemic [73][77][78], followed by confusion over the actual policy [79] and evidence of xenophobia and discrimination, including gender-based, in treatment [79][80]. By September 2021, South Africa had administered more than 16 million doses of COVID-19 vaccines to its citizens. The Government was being urged from many quarters to prioritize refugees, asylum seekers and undocumented persons in the vaccination programme [81]. These groups, and especially the undocumented, had been effectively excluded by the registration requirements of the Electronic Vaccination Data System to provide an ID number, passport number or refugee/asylum seeker permit number [82]. The Government responded to these calls, and to the escalating infection rate as the Omicron variant took hold, by announcing in December 2021 that the vaccine was being offered to those without documentation [83], including through pop-up centres [84].

2.3. United States of America

The USA is the only country in the developed world without a system of universal healthcare. Its health system is fragmented both by source of provision (partly through health insurance provided either through the workplace or privately purchased, partly through Government schemes such as Medicaid, Medicare and Children's Health Insurance Program) and

geographically, with Federal approaches to healthcare services interpreted at the State level and often politicized [85]. According to a 2020 study by the Pew Research Center [86], there were 10.5 million unauthorized immigrants in the USA in 2017, which accounts for an estimated 3% of the total US population. About half of the estimated number of undocumented immigrants are uninsured, compared to 31 million US citizens in 2020 who are uninsured. Undocumented immigrants are systematically excluded from enrolling in federal health insurance programs mentioned previously and coverage through the Affordable Care Act (ACA) Marketplaces [87]. Additionally, evidence has shown that many undocumented migrants are less likely to have employer-based health insurance because they are often employed in industries that do not offer health benefits (i.e., agriculture and construction). The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 significantly transformed the US welfare system, where welfare was no longer seen as an entitlement to individuals [88]. Title IV of PROWRA specifically makes it difficult for immigrants to access welfare, stating that “self-sufficiency has been a basic principle of United States Immigration law since this country’s earliest immigration statues” [89]. The document further reads that the eligibility rules are to assure “that individual aliens do not burden the public benefits system”. During the COVID-19 pandemic, lack of health insurance left many undocumented immigrants unable or unwilling to seek treatment and the COVID vaccine.

The inability and unwillingness to access COVID-19 healthcare treatment and vaccine were exacerbated by immigration polices implemented after the 2016 elections [90]. For example, the public charge rule penalizes the use of sought public benefits by immigrants looking to change their immigration status. Since 2021, many of these anti-immigration policy changes have been revised, including the public charge rule, but these past immigration policies continue to have a “chilling effect” on healthcare coverage of undocumented migrants, especially during the COVID-19 pandemic [91]. Despite the new Administration supporting the expansion of health coverage, no specific proposal has been offered yet. Many undocumented immigrants with COVID-19 can seek treatment in emergency department services covered by Emergency Medicaid. The Emergency Medical Treatment and Labor Act (EMTALA) requires Medicare-participating hospitals with emergency departments to provide emergency care to all, regardless of immigration status, and in a non-discriminatory manner. However, EMTALA no longer applies when a patient is stabilized or when an uninsured patient does not require emergency services. Several states amended their Emergency Medicaid-qualifying conditions to include outpatient prevention, testing, and treatment of COVID-19 [92].

When the first approvals were given for COVID-19 vaccines in the USA, the US Centers for Disease Control and Prevention guidelines for COVID-19 vaccination accorded high priority to, among others, health-care personnel and other essential (both health and non-health workers [93]), groups in which nondocumented migrants are prominent. A Department of Homeland Security statement [94] in February 2021 said that the Government “fully support equal access to COVID-19 vaccines and vaccine distribution sites for undocumented immigrants. It is a moral and public health imperative to ensure that all individuals residing in the United States have access to the vaccine. DHS encourages all individuals, regardless of immigration status, to receive the COVID-19 vaccine once eligible under local distribution guidelines”. The statement announced that, as well as fixed clinics, there would be pop-up or temporary vaccination sites, and mobile vaccination clinics. It assured that Immigration and Customs Enforcement and Customs and Border Protection would not conduct enforcement operations at or near vaccine distribution sites or clinics. However, a Congressional Research Service, report later in February 2021 observed [95] that barriers to vaccination remained among the unauthorized population, including a range of sociodemographic factors and prevalence of immigration enforcement fears associated with the risk of incurring a ‘public charge’. Socioeconomic and sociodemographic factors were also highlighted in the University of Minnesota collection on health, vaccines, and equity [96].

Recent evidence points to uptake of the vaccine being lower among immigrants and especially those who are undocumented [97]. In addition to fears over their precarious state, reasons given for vaccine hesitancy included the lack of access to information, language barriers and conflicts between work and clinic hours. Strategies to overcome these barriers included the use of trusted leaders and improved informational messaging from government agencies and the medical community, broad engagement of the community and responsiveness to language and cultural needs, as well as overcoming practical obstacles to vaccination access. A strong role was suggested for existing, trusted, culturally intelligent community-based organizations and local sociocultural processes.

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