

Faith-Based Organizations and SARS-CoV-2 Vaccination: Challenges and Recommendations

Public Health Reports
00(0) 1-6
© 2021, Association of Schools and
Programs of Public Health
All rights reserved.
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/00333549211054079
journals.sagepub.com/home/phr



Jeff Levin, PhD, MPH¹ ; Ellen L. Idler, PhD²; and Tyler J. VanderWeele, PhD³

Keywords

SARS-CoV-2, COVID-19, vaccination, faith-based, religion

Mass vaccination, despite uncertainty about the duration of protection,¹ is the safest and best hope of attaining global herd immunity against infection with the SARS-CoV-2 virus.² Attaining herd immunity requires cooperation among diverse partners: government health ministries, nongovernmental organizations, subnational public health agencies, pharmaceutical corporations and vaccine distributors, and civil-society-sector institutions. Foremost among the latter are faith-based organizations (FBOs), key players historically in public health outreach in the United States and globally.³ This legacy includes important FBO partnerships in historical^{4,5} and current infectious disease control efforts, including the Bill and Melinda Gates Foundation's malaria control program⁶ and the President's Emergency Plan for AIDS Relief to prevent and treat HIV infection.⁷

Partnering with the faith sector has been at times contentious for public health. This contentiousness is owed in part to opposition from some religious groups to family planning and to antivaccinators' increasing appeals to religion for exemptions from vaccines, including childhood vaccinations.⁸ The latter is particularly frustrating because (with the possible exception of Christian Science, and even there it is a matter of personal choice) no canonical basis exists in the teachings of the world's major religions for refusing vaccination.⁹ Such conflict also points to competition between religion and medicine¹⁰ and religion and science¹¹ as arbiters of matters of ultimate importance for human life. Such disputes of late have undercut the promise of partnerships between FBOs and public health agencies for prevention of acute and chronic diseases.¹²

Partnerships can take various forms, depending on the type of FBO and alliance with public health institutions. One taxonomy differentiates faith-saturated, faith-centered, faith-background, and other institutional arrangements.¹³ These arrangements refer to distinctive ways that religious people and organizations can ally with health care institutions. The key takeaway is that collaborative partnerships of myriad

types can be observed between FBOs and the public health sector, with varying levels of institutional autonomy. Moreover, such partnerships have proven valuable in disease prevention and health promotion, including vaccination programs. In 2010, for example, the US Department of Health and Human Services' Center for Faith-based and Neighborhood Partnerships, the Association of State and Territorial Health Officials, and the Centers for Disease Control and Prevention (CDC) partnered with Emory University's Interfaith Health Program to organize a network of 10 sites to address the H1N1 influenza virus.¹⁴ Some sites in this network provided education to increase uptake in their communities, some provided transportation, some addressed barriers related to mistrust, and some provided vaccinations.

Special challenges confront public health leaders negotiating faith-based partnerships for SARS-CoV-2 vaccination. The mixed track record of the faith sector in addressing the COVID-19 pandemic includes some religious groups' deliberate disregard of public health measures to control transmission, mitigate damage, and promote vaccination,¹⁵ plus the "infodemic" of misinformation¹⁶ spread from some pulpits. Troubling, too, is anxiety created by apocalyptic speculation about the virus¹⁷ and misinformation about face masks and social-distancing guidelines originating from some clergy and religious leaders, often advocated in the name of

¹ Institute for Studies of Religion and Medical Humanities Program, Baylor University, Waco, TX, USA

² Departments of Sociology and Epidemiology, Emory University, Atlanta, GA, USA

³ Departments of Epidemiology and Biostatistics, Harvard University, Boston, MA, USA

Corresponding Author:

Jeff Levin, PhD, MPH, Baylor University, Institute for Studies of Religion, I Bear Pl #97236, Waco, TX 76798, USA.

Email: jeff_levin@baylor.edu

religious freedom.¹⁸ Since the vaccine rollout, such themes have merged with longstanding antivaccination skepticism to impede vaccination efforts in some communities.¹⁹

Still, these challenges can be overcome, evidenced by selfless and passionate contributions of clergy, congregations, and religious institutions to the national and global effort to confront the pandemic. These include faith-based efforts to promote vaccine access and acceptance.²⁰ Although important objectives of public health and faith traditions may differ, they are rarely in direct conflict. Religious commitment may be a valuable ally in promoting safe practices,²¹ and many religious institutions and people have exemplified laudable pastoral and moral behavior in shepherding local congregations and communities in a health-promotive direction throughout the pandemic.²²

Religious teachings on compassion and the love of neighbors found in Muslim, Jewish, and Christian scriptures, for example, are influential grounds for supporting primary prevention.²³ Faith may function as a “social immune system” for communities during times of crisis, such as now.²⁴ On the basis of historical examples and widely accepted teachings, then, there is reason for optimism regarding contributions of the faith sector to the coronavirus response. The World Health Organization (WHO) has acknowledged the importance of FBOs since early in the pandemic.²⁵ Other public health leaders have called for interdisciplinary and multiculturally sensitive approaches to vaccination.²⁶ With this in mind, recommendations are offered involving partnerships to facilitate the SARS-CoV-2 vaccination effort.

The Faith Sector and COVID-19

No simple statement can characterize the ongoing response of the faith sector to the COVID-19 pandemic. Religion, broadly, including actions of clergy, FBOs, and individuals and communities of faith, has been a force for constructive service and destructive interference—both part of the problem and part of the solution.²⁷ The literature on this subject has grown so large so rapidly that one is hard pressed to digest it all. For example, at the time of this writing, a PubMed search using the terms *religion*, *religious*, *church*, or *faith-based* combined with *COVID-19*, *SARS-CoV-2*, or *coronavirus* produced more than 1200 hits. These include positive and negative accounts of religion’s encounter with the pandemic.

The WHO and CDC issued guidance for faith communities as far back as spring 2020. By then, Emory University’s Interfaith Health Program and Georgetown University’s Berkley Center had mounted extensive websites of resources for faith communities, religious leaders in the United States had formed a Facebook group for clergy with 7000 members, and churches in African American neighborhoods in New York City had opened coronavirus testing centers.²⁸ Concurrently, websites of major religious denominations

posted statements of support for WHO and CDC guidance on face masks, social distancing, and risk prevention, with many denominations halting congregational gatherings and moving to remote live-streaming of religious services. By summer 2020, a consultation at Emory University’s schools of theology and public health had developed guidelines for resuming limited worship safely in 4 Christian denominations, with social distancing, face masks, and sanitizing.²⁹ Objectives were to minimize risk and maximize prevention while respecting congregations’ right to continue communal worship.

In sum, public pronouncements of religious bodies in the United States have been aligned with CDC and WHO guidance, prioritizing care for others over other considerations, such as a sole emphasis on religious freedom. These statements underscore how the tacit conflict narrative defining relationships between religion and public health may be overstated. On the whole, institutional religion and most denominations have strongly supported immunization, even if individual congregations and pastors have been a hindrance, amplified by social media, aggressive news coverage, and misinformation and disinformation on the internet.³⁰ This straying off message underscores the persistent heterogeneity of responses within denominations that, officially, endorse primary prevention.

As the United States and the global community proceed through a vaccine rollout of unknown duration, especially accounting for the emergence of variants of concern, public health leaders should be mindful of how interfacing with FBOs can both help and hinder global, national, regional, and local efforts.³¹ These efforts cannot easily succeed without assistance from the voluntary sector, including FBOs.

Challenges for Vaccination

Challenges confront public health agencies in implementing SARS-CoV-2 vaccination in partnership with FBOs. These challenges are outgrowths of long-standing wariness and mistrust, often ideologically based, between public health and certain faith communities.

Faith Sector Skepticism and Antipathy Toward Public Health

To be clear, this skepticism and antipathy is not a universal trait of religious organizations or leaders. However, throughout the pandemic, the spread of misinformation on social media has derailed vaccination efforts in some communities by fostering vaccine hesitancy. A review of support for vaccination among the world’s religions found that in Islam, Judaism, and Christianity, certain sectors of these faith traditions have expressed opposition to SARS-CoV-2 vaccination, noting the influence of local religious leaders on their followers.³² Histories of hostility to vaccination campaigns

in some faith communities and moral traditions are important to consider,³³ as well as mistrust of government within particular cultural, racial, and ethnic groups. An example is distrust within the African American community toward public health authorities in light of the notorious Tuskegee syphilis study and other manifestations of structural racism within the health care system.³⁴ More broadly, committed people of faith may find themselves pressured to choose whom to trust—religious authorities or public health experts—with the issue further complicated by the widespread confounding of vaccine attitudes with political allegiances.³⁵

Public Health's Oftentimes Disdainful Attitude Toward Religion

This attitude, likewise, is not a universal trait of public health agencies or leaders. The WHO, for one, has endorsed collaboration with faith groups, including the World Council of Churches, for purposes of global health development and advocating for universal health care.³⁶ But, where present, a condescending or patronizing attitude toward religion hampers efforts to gain support within certain communities already disinclined, surveys report, to accept a SARS-CoV-2 vaccine.³⁷ These communities may also be most at risk for exposure, infection, caseness (ie, a confirmed clinical case of COVID-19), and a more virulent course of disease.

In some locales, religious groups have aggressively disobeyed face mask and social-gathering mandates in the name of religious freedom, creating confrontations ending up in court, including the US Supreme Court,³⁸ and undermining communication and trust. For plaintiffs, the issue may not explicitly imply a rejection of science but, rather, concern that congregations are being held to a different standard than, for example, businesses allowed to remain open. However, concern about seeming disregard of science led a group of 76 Christian leaders, including National Institutes of Health Director Francis Collins, to publish a letter calling on religious believers to prioritize science.³⁹ These competing opinions underscore the complexity of the apparent conflict between religion and public health: each side is speaking past the other and in reference to different salient issues, but they are not necessarily in unresolvable conflict.

Jurisdictional Conflicts Between the Faith and Public Health Sectors

This challenge concerns who directs the encounter between these 2 sectors. Is there authentic engagement with community partners, or does the government impose a top-down technocratic agenda? Religious identity and participation may be a moderator variable, in a sense, conditioning how people and communities respond to pandemic response guidelines. One study found that perceived heavy-handedness on the part of government—imposition of shelter-in-place

orders—provoked greater nonadherence by religiously affiliated citizens who had otherwise followed primary preventive recommendations.⁴⁰ The authors encouraged attentiveness to how public health directives are messaged, to minimize their being seen as conflicting with deeply held values, such as religious freedom, and to maximize their view as consistent with other values, such as service to others, implicit in the ethos of the major religions.

Recommendations for Public Health Agencies

FBOs have an active role to play in partnership with public health agencies and nongovernmental organizations. Based on the aforementioned challenges, we offer the following recommendations for such partnerships.

Building Trust

The past is always prologue. Public health leaders ought to recognize long-standing mistrust of government in communities of color as well as in more conservative branches of the world's faith traditions. If the SARS-CoV-2 vaccination rollout is to achieve maximum coverage, then leaders must forge open channels of communication with faith communities, especially those with a history of difficult relationships with government agencies. Public health officials should also consider being more transparent, and less reactive, about the limits of existing knowledge regarding safety, efficacy, breakthrough cases, variants, and other issues that may alarm laypeople.⁴¹

Using Existing Networks

Prior successful partnerships can serve as models for cooperation. Public health agencies should activate existing networks of faith community leaders and community-wide interfaith organizations. Hundreds of communities have implemented alliances between the local health department and clergy, across religions,⁴² including for purposes of primary prevention in underserved populations.⁴³ The SARS-CoV-2 effort can be piggybacked onto ongoing networks, or new groups can be formed using other communities as examples. The growing literature on this topic⁴⁴ enables communities to implement an evidence-based best-practices approach.

Drawing on Expertise

FBOs are community experts; they are close to the ground. In some underserved communities, religious congregations represent the primary social network for residents, the most influential social institution, and a key provider of human services. In these communities, no group is more attuned to the needs and perspectives of its

constituents. CDC recommends that faith community leaders be active partners in any public health program or intervention seeking participation of its members.⁴⁵ Clergy or other FBO representatives can best identify community values and preferences as well as potential barriers to achieving what may be well-meaning community health objectives.

Involving Community Partners

Besides fostering trust in drawing on the expertise of the faith community for purposes of facilitating entrée, faith leaders should have a seat at the table of community planning groups formulating plans for vaccine dissemination. Among the most influential community partners, their presence among professional decision makers serves 2 purposes. First, as noted, they can ensure that proposed interventions are culturally sensitive and do not conflict with closely held (religious) values. Second, they may be influential in facilitating participation, as their presence may convey a religious imprimatur. Such partnerships ought to extend beyond the COVID-19 pandemic and become a permanent feature of community outreach for local health departments.

Resolving Conflicts

Public health and faith community leaders should recognize that trust is a mutual covenant—an irreplaceable, bidirectional community asset to be protected and nurtured on both sides of the relationship. Science can supply facts, but values come from elsewhere. These 2 sectors may have distinctive worldviews and characteristic values that overlap only partly. Work can be done to build partnerships even when values conflict. Cooperation between sectors is imperative for the vaccination effort to succeed. Public health needs the faith community to increase its capacity to immunize hard-to-access segments of the population (eg, medically underserved or isolated rural areas; elderly widows living alone), and the faith community needs public health to preserve the lives of its constituents. No matter what tensions arise, ideological or political, these are challenging times, and leaders of both sectors must pledge to work together and forge alliances for the good of their communities.

Conclusion

In sum, a successful partnership between public health and religion during the present pandemic and vaccination rollout depends on mutual trust among partners. When asked about vaccine hesitancy and who influences a decision to be vaccinated, the Kaiser Family Foundation found in a nationally representative US sample that the most trusted messengers were friends, but respondents also

named religious leaders and church members specifically.⁴⁶ Activation of close social networks through partnerships with faith communities is a recognized and essential strategy.⁴⁷⁻⁴⁹ Such alliances may even increase in importance over time, especially if new-variant viruses create SARS-CoV-2 endemicity that requires annual revaccination.⁵⁰

It is reasonable that both the faith and public health sectors should desire to ally with a respective partner that helps advance the mutual goal of prevention of suffering. Neither side can afford to move forward without the other, as each has invaluable content knowledge that the other does not. Negotiating the dance between these 2 sectors and between respective forces angling for positive social change, fidelity to transcendent principles, and bureaucratic control is complex, to say the least, with no day in sight whereby this issue no longer prevails. Although competing ends and values may not always align with each other, such differences should be aired respectfully, although the disagreements are real and important. The successful resolution of the pandemic depends on a thoughtful and reasoned approach to cooperation.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Jeff Levin, PhD, MPH  <https://orcid.org/0000-0002-8983-7493>

References

1. Anderson RM, Vegvari C, Truscott J, Collyer BS. Challenges in creating herd immunity to SARS-CoV-2 infection by mass vaccination. *Lancet*. 2020;396(10263):1614-1616. doi:10.1016/S0140-6736(20)32318-7
2. Fontanet A, Cauchemez S. COVID-19 herd immunity: where are we? *Nat Rev Immunol*. 2020;20(10):583-584. doi:10.1038/s41577-020-00451-5
3. Haakenstad A, Johnson E, Graves C, Olivier J, Duff J, Dieleman JL. Estimating the development assistance for health provided to faith-based organizations, 1990-2013. *PLoS One*. 2015;10(6):e0128389. doi:10.1371/journal.pone.0128389
4. Aylward L. *Faith and Immunization: Past, Present and Potential Roles of Faith-Inspired Organizations*. World Faiths Development Dialogue and GAVI Alliance; May 30, 2012. Accessed September 27, 2021. <https://berkeleycenter.georgetown.edu/publications/faith-immunization-past-present-and-potential-roles-of-faith-inspired-organizations>

5. Olivier J. *Local Faith Communities and Immunization for Community and Health Systems Strengthening*. Joint Learning Initiative on Faith and Local Communities; 2014.
6. Greenwood B, Bhasin A, Targett G. The Gates Malaria Partnership: a consortium approach to malaria research and capacity development. *Trop Med Int Health*. 2012;17(5):558-563. doi:10.1111/j.1365-3156.2012.02970.x
7. Dybul M. Lessons learned from PEPFAR. *J Acquir Immune Defic Syndr*. 2009;52(suppl 1):S12-S13. doi:10.1097/QAI.0b013e3181bbc98d
8. Olive JK, Hotez PJ, Damania A, Nolan MS. The state of the antivaccine movement in the United States: a focused examination of nonmedical exemptions in states and counties. *PLoS Med*. 2018;15(6):e1002578. doi:10.1371/journal.pmed.1002578
9. Grabenstein JD. What the world's religions teach, applied to vaccines and immune globulins. *Vaccine*. 2013;31(16):2011-2023. doi:10.1016/j.vaccine.2013.02.026
10. Levin J. *Religion and Medicine: A History of the Encounter Between Humanity's Two Greatest Institutions*. Oxford University Press; 2020.
11. Harrison P. *The Territories of Science and Religion*. University of Chicago Press; 2015.
12. Idler E, Levin J, VanderWeele TJ, Khan A. Partnerships between public health agencies and faith communities. *Am J Public Health*. 2019;109(3):346-347. doi:10.2105/AJPH.2018.304941
13. Idler E, Kellehear A. Religion in public health-care institutions: U.S. and U.K. perspectives. *J Sci Stud Relig*. 2017;56(2):234-240. doi:10.1111/jssr.12349
14. Kiser M, Lovelace K. A national network of public health and faith-based organizations to increase influenza prevention among hard-to-reach populations. *Am J Public Health*. 2019;109(3):371-377. doi:10.2105/AJPH.2018.304826
15. Barua Z, Barua S, Aktar S, Kabir N, Li M. Effects of misinformation on COVID-19 individual responses and recommendations for resilience of disastrous consequences of misinformation. *Prog Disaster Sci*. 2020;8:100119. doi:10.1016/j.pdisas.2020.100119
16. Mheidly N, Fares J. Leveraging media and health communication strategies to overcome the COVID-19 infodemic. *J Public Health Policy*. 2020;41(4):410-420. doi:10.1057/s41271-020-00247-w
17. Sturm T, Albrecht T. Constituent COVID-19 apocalypses: contagious conspiracism, 5G, and viral vaccinations. *Anthropol Med*. 2021;28(1):122-139. doi:10.1080/13648470.2020.1833684
18. Reiss DR, Thomas M. More than a mask: stay-at-home orders and religious freedom. *San Diego L Rev*. 2020;57(4):947-972.
19. Thomas E, Zhang A. *ID2020, Bill Gates and the Mark of the Beast: How COVID-19 Catalyses Existing Online Conspiracy Movements*. Australian Strategic Policy Institute; 2020.
20. Williams JTB, Miller A, Nussbaum AM. Combating contagion and injustice: the shared work for public health and faith communities during COVID-19. *J Relig Health*. 2021;60(3):1436-1445. doi:10.1007/s10943-021-01243-4
21. Perry SL, Whitehead AL, Grubbs JB. Culture wars and COVID-19 conduct: Christian nationalism, religiosity, and Americans' behavior during the coronavirus pandemic. *J Sci Stud Relig*. 2020;59(3):405-416. doi:10.1111/jssr.12677
22. Levin J. Religion and mental health in the age of COVID-19. Berkley Forum. May 22, 2020. Accessed September 27, 2021. <https://berkleycenter.georgetown.edu/responses/religion-and-mental-health-in-the-age-of-covid-19>
23. VanderWeele TJ. Love of neighbor during a pandemic: navigating the competing goods of religious gatherings and physical health. *J Relig Health*. 2020;59(5):2196-2202. doi:10.1007/s10943-020-01031-6
24. Gunderson G, Cutts T. Faith communities as a social immune system: recommendations for COVID-19 response and recovery. *J Creative Commun*. 2021;16(2):153-167. doi:10.1177/0973258620983352
25. World Health Organization. Practical considerations and recommendations for religious leaders and faith-based communities in the context of COVID-19: interim guidance. April 7, 2020. Accessed September 27, 2021. https://apps.who.int/iris/bitstream/handle/10665/331707/WHO-2019-nCoV-Religious_Leaders-2020.1-eng.pdf
26. Naumova EN. Together with the public health world. *J Public Health Policy*. 2021;42(1):1-5. doi:10.1057/s41271-021-00278-x
27. Levin J. The faith community and the SARS-CoV-2 outbreak: part of the problem or part of the solution? *J Relig Health*. 2020;59(5):2215-2228. doi:10.1007/s10943-020-01048-x
28. Kuruvilla C. New York churches open COVID-19 testing sites in push to reach minority communities. *Huffington Post*. May 15, 2020. Accessed September 27, 2021. https://www.huffpost.com/entry/new-york-churches-coronavirus-testing_n_5ebe8f8c5b6d3515dfa583e
29. Phillips LE, Edwards TWB, Goodpaster L. *Resuming Care-Filled Worship and Sacramental Life During a Pandemic*. Emory University Interfaith Health Program; June 8, 2020. Accessed September 27, 2021. <https://ihpemory.org/wp-content/uploads/2020/06/Resuming-Care-filled-Worship-and-Sacramental-Life.pdf>
30. Kata A. A postmodern Pandora's box: anti-vaccination misinformation on the internet. *Vaccine*. 2010;28(7):1709-1716. doi:10.1016/j.vaccine.2009.12.022
31. Olivier J. Interventions with local faith communities on immunization in development contexts. *Rev Faith Int Aff*. 2016;14(3):36-50. doi:10.1080/15570274.2016.1215843
32. Marshall K, Seifman R. COVID-19 vaccines: bridging religious divides, engaging religious support. *Impakter*. December 10, 2020. Accessed September 27, 2021. <https://impakter.com/covid-vaccines-engaging-religious-support/>
33. Amin AB, Bednarczyk RA, Ray CE, et al. Association of moral values with vaccine hesitancy. *Nat Hum Behav*. 2017;1(12):873-880. doi:10.1038/s41562-017-0256-5
34. Alsan M, Wanamaker M. Tuskegee and the health of Black men. *Q J Econ*. 2018;133(1):407-455. doi:10.1093/qje/qjx029

35. Druckman JN, Ognyanova K, Baum MA, et al. The role of race, religion, and partisanship in misperceptions about COVID-19. *Group Process Intergroup Relat.* 2021;24(4):638-657. doi:10.1177/1368430220985912
36. Ghebreyesus TA. The 70th anniversary of the World Council of Churches. Director General's Office, World Health Organization. June 16, 2018. Accessed September 27, 2021. <https://www.who.int/director-general/speeches/detail/the-70th-anniversary-of-the-world-council-of-churches>
37. Olagoke AA, Olagoke OO, Hughes AM. Intention to vaccinate against the novel 2019 coronavirus disease: the role of health locus of control and religiosity. *J Relig Health.* 2021;60(1):65-80. doi:10.1007/s10943-020-01090-9
38. Supreme Court of the United States. *South Bay United Pentecostal Church, et al. v. Gavin Newsom, Governor of California, et al., on application for injunctive relief* (February 5, 2021). Accessed September 27, 2021. https://www.supremecourt.gov/opinions/20pdf/20a136_bq7c.pdf
39. BioLogos. Love your neighbor, get the shot! A Christian statement on science for pandemic times. August 17, 2020. Accessed September 27, 2021. <https://statement.biologos.org>
40. DeFranza D, Lindow M, Harrison K, Mishra A, Mishra H. Religion and reactance to COVID-19 mitigation guidelines (published online August 10, 2020). *Am Psychol.* doi:10.1037/amp0000717
41. Schwartz JL. Evaluating and deploying COVID-19 vaccines—the importance of transparency, scientific integrity, and public trust. *N Engl J Med.* 2020;383(18):1703-1705. doi:10.1056/NEJMp2026393
42. Barnes PA, Curtis AB. A national examination of partnerships among local health departments and faith communities in the United States. *J Public Health Manag Pract.* 2009;15(3):253-263. doi:10.1097/01.PHH.0000349740.19361.ac
43. Zahner SJ, Corrado SM. Local health department partnerships with faith-based organizations. *J Public Health Manag Pract.* 2004;10(3):258-265. doi:10.1097/00124784-200405000-00010
44. Kegler MC, Hall SM, Kiser M. Facilitators, challenges, and collaborative activities in faith and health partnerships to address health disparities. *Health Educ Behav.* 2010;37(5):665-679. doi:10.1177/1090198110363882
45. Centers for Disease Control and Prevention. *Engaging Faith Communities as Partners in Improving Community Health: Highlights From a CDC/ATSDR Forum Addressing: Separation of Church and State; the Science Supporting Work With Faith Communities; and Exemplary Partnerships.* US Department of Health and Human Services; 1999.
46. Kirzinger A, Hamel L, Sparks G, Brodie M. KFF COVID-19 vaccine monitor: in their own words. February 8, 2021. Accessed September 27, 2021. <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-in-their-own-words>
47. Barmania S, Reiss MJ. How religion can aid public health messaging during a pandemic. *Nature India.* May 20, 2020. Accessed September 27, 2021. <https://www.natureasia.com/en/nindia/article/10.1038/nindia.2020.87>
48. Tony Blair Institute for Global Change. COVID-19: guide for governments: working with religious leaders to support public-health measures. April 23, 2020. Accessed September 27, 2021. <https://institute.global/sites/default/files/inline-files/Tony%20Blair%20Institute%2C%20Working%20With%20Religious%20Leaders%20to%20Support%20Public%20Health%20Measures.pdf>
49. US Department of Health and Human Services. *COVID-19: Recommended Preventative Practices and FAQs for Faith-Based and Community Leaders.* The Partnership Center; March 17, 2020. Accessed September 27, 2021. <https://www.hhs.gov/sites/default/files/3-17-20-faith-and-community-based-covid-19-faq.pdf>
50. Grover N. COVID: new vaccines needed globally within a year, say scientists. *The Guardian.* March 30, 2021. Accessed September 27, 2021. <https://www.theguardian.com/world/2021/mar/30/new-covid-vaccines-needed-within-year-say-scientists>