

WORK-IN-PROGRESS AND LESSONS LEARNED

Lessons Learned from Rapid Community Needs Assessment in the African American Community During the COVID-19 Pandemic

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ABSTRACT:

Background: With the accelerated spread of COVID-19 and current shelter-in-place orders from many local governments, African American (AA) communities appear more vulnerable as emerging data show disproportionate rates of infection and mortality among AAs across the nation.

Objectives: In a sample of AA church members, to conduct a rapid community assessment during the early phase of the COVID-19 pandemic.

Methods: Our community-based participatory research (CBPR) team, partnering with the local AA church community and including trained lay health workers (LHWs), conducted the assessment via telephone and online.

Results: Although most participants reported high confidence regarding recommendations for physical distancing, over 60% reported elevated anxiety and stress, and 10% indicated that they needed more information about staying healthy and safe during the pandemic.

Conclusions: CBPR with LHWs is an effective method to implement a community needs assessment, problem-solve with community members, and build community health infrastructure during a public health crisis.

KEYWORDS: Community health partnerships, Needs Assessment, Education, African American community, pandemics, COVID-19, social isolation

INTRODUCTION

Despite two decades of impressive reductions in U.S. mortality rates, many vulnerable subgroups, including African Americans (AAs), still experience significant health disparities. The COVID-19 pandemic is revealing that health inequities in the U.S. healthcare system have reached a critical stage. Emerging statistics show that the brunt of this pandemic's effects is falling harshly on the most vulnerable U.S. populations. Social and economic health inequities across many states in the U.S. leave AAs and other ethnic minorities more susceptible to COVID-19, with disproportionately high rates of related deaths.¹⁻³

Social determinants of health (SDOH), factors and conditions that influence individuals' health risks and outcomes, help to explain health disparities across race.^{4,5} Inequities in the distribution of social and economic resources across race/ethnicity are well documented in the U.S.⁶⁻⁹ and impact health at both the individual and population levels. SDOH may also help explain COVID-19 case and fatality disparities across races/ethnicities, including low health literacy and insufficient access to culturally sensitive, effective, evidence-based health services. Despite medical breakthroughs and improved overall health and quality of life, the morbidity and mortality of high-risk groups such as AAs in the U.S. are increasingly associated with social and environmental factors that override any positive impact of such advancements.

In addition, current frequent shelter-in-place orders to curb the spread of COVID-19 may contribute to serious health consequences related to social isolation— “disengagement from social ties, institutional connections or community participation.”^{10(p442)} A 2010 meta-analysis of 148 studies with 308,849 participants found that stronger social relationships increased the likelihood of survival by 50% (OR, 1.50; 95% CI, 1.42–1.59). Insufficient social connectedness was determined to be a mortality risk factor with an influence that exceeds that of other risk

factors such as physical inactivity and obesity. The magnitude of the effect of social relationships on mortality is on par with quitting smoking.¹¹

Thus, evidence is strong that social isolation and persistent feelings of loneliness are dangerous and independent health risks, especially for the elderly.¹² In the third National Health and Nutrition Examination Survey and National Death Index, with population data on 16,849 adults, social isolation was as strong a predictor for mortality as traditional clinical risk factors such as smoking, obesity, elevated blood pressure, and high cholesterol, and social isolation was a predictor of mortality for both men and women.¹³ Individual isolation predictors differed between genders; participation in religious activities predicted mortality similarly for both.¹³ This is significant, because COVID-19 shelter-in-place orders have impacted religious activities among churches, and the church plays a major role in AA populations.¹⁴

The social isolation recently imposed due to the COVID-19 pandemic is a challenge for any individual, but it is overwhelmingly challenging for people with chronic illnesses and limited resources. Health professionals are increasingly concerned that physical distancing policies will disproportionately exacerbate disease management and overall health in high-risk groups—namely, community-dwelling older adults with multiple chronic diseases, and ethnic minorities with limited financial resources, who were already experiencing health disparity gaps before COVID.

Given this context, our community-based participatory research (CBPR) team of academic researchers, community lay health workers, and community leaders in AA churches in a southern metropolitan city conducted a rapid community assessment to evaluate the degree of social isolation and identify congregant needs during the early phase of the pandemic. Due to the

fraught history of research in communities of color, a CBPR approach is critical for gaining community trust and cooperation. The core elements of CBPR include a community collaboration to identify needs, with the goal of decreasing inequities and building sustainability.¹⁵

Community Engagement History

The African American Church-Based Mental Health and Wellness (AMEN) program is a comprehensive, multi-year CBPR program designed to improve physical and mental health of AAs in faith-based settings. AMEN's objective is to collaborate with church members throughout the program to implement a holistic wellness program by providing education (i.e., chronic disease self-management and mental health literacy training) and access to SDOH resources. Our CBPR team includes multidisciplinary academic researchers, clinicians, and multiple stakeholder: pastors, health ministry leaders, lay health workers (LHWs), and community organizations. Our academic nurse clinicians have specialties in chronic disease management, public health, social work, psychiatry/mental health, primary care, and motivational interviewing. This blend of expertise informs our holistic approach to improve the mental and physical well-being of the community. The team offers mental health and chronic disease management classes led by registered nurses and LHWs, provides onsite primary care clinics using nurse practitioners (family and psychiatric/mental health) and LHWs for administrative and follow-up support, and sponsors Mental Health First Aid training.¹⁶ Consistent with CBPR, our program is based on participant feedback along with observations and expertise from our diverse team. Any programmatic changes implemented are in alignment with the goal of addressing SDOH in a holistic way to maximize mental and physical health of AAs.

METHODS

To address health disparities associated with SDOH, we launched a COVID-19 needs assessment survey on March 26, 2020 with congregants of two historic AA churches. We modified program strategies, in collaboration with the pastors and LHWs from both churches, to adhere to COVID-19 safety guidelines. Preparation of this manuscript also employed a CBPR approach; our LHWs conducted phone assessments, and a pastor participated as a co-author. The entire AMEN protocol, was reviewed by the Institutional Review Board (IRB) at the University of Texas at Austin (FWA # 00002030), which deemed that this exploratory service project did not need IRB oversight. In addition, the protocol was reviewed and approved by the leadership (pastors and elders) of each church.

The assessment survey was designed to identify and address the stressors and needs of our AA church community in the early phase of the COVID-19 pandemic. Early discussions with the AMEN LHWs revealed a collective desire to reach out to congregants to assess their needs and provide support during this uncertain time. The AMEN team combined the churches' innate desire to provide outreach to congregants with the academic team's ability to prepare a structured survey that could be easily conducted by phone or emailed as a web-link. A Qualtrics survey was created, once the team agreed on the desired information to collect. The AMEN team compiled a local referral guide that listed resources on mental/physical wellness and social/economic services, which LHWs could use or send out, based on congregants' needs.

The COVID-19 rapid community needs assessment survey, with 32 questions, asked about participants' knowledge of COVID-19 and their ability to manage physical and mental health. The survey included items from the EveryONE Project, which covers themes such as housing, food, transportation, and finances.¹⁷ The survey assessed social connectedness, coping,

and prioritization of needs, and it included 4 questions about loneliness, based on the UCLA Loneliness Scale, with 2 items from the 20-item measure, and 2 from the 3-item short scale^{18,19}: *There is no one I can turn to; I feel completely alone; How often do you feel that you lack companionship?* and *How often do you feel isolated from others?* These 4 items capture subjective feelings of loneliness as well as feelings of social isolation, while limiting response burden. Participants were also asked whether they wanted to receive follow-up calls from an AMEN LHW.

The survey was administered through telephone interviews conducted by trained LHWs from the two participating churches from March 26, 2020 to April 29, 2020, during the early phase of the pandemic; the online survey was made available via the churches' websites and email links. To recruit participants, LHW leaders within each church compiled a list of congregants who were already participating in AMEN programming. Both churches also shared a list of congregants from their church directories with the LHWs. These lists were divided up among the LHWs, so that each LHW had a caseload of congregants to contact by phone. The larger church also emailed their congregants to announce the survey and determine whether they would like to complete it online or by telephone. When completed by phone, the survey took an average of 20–45 minutes, depending on congregant needs and talkativeness. When congregants did not answer, the LHW left a detailed message with a call-back number and made at least 3 attempts to reach the congregant.

Congregants who completed the survey online and requested a call-back were divided among the LHWs and were added to the phone call list. LHWs proceeded to call them and administer the phone survey to further assess their needs. Congregants who reported specific needs and did not have family or friends to help them were contacted by the AMEN team to

provide further assistance. Those who requested to be called again were retained on the LHW caseload for weekly phone calls.

A total of 126 participants completed the survey (52 online, 74 via telephone). About 37.5% of participants requested a follow-up call from an LHW; the LHWs made calls weekly or upon request. In April, the LHWs made 21 follow-up calls. LHWs made 90 follow-up calls in May as more congregants completed the survey and the follow-up calls process improved.

RESULTS

Sample Demographic Characteristics

The mean age of the 126 participants who completed the survey was 58.7 ($SD = 18.4$; range, 18.9 to 92.8 years). More females (64.3%) participated than males (33.3%) ($n = 123$). More than half had 1–2 people living in the household (range, 1 to more than 6).

COVID-19–Related Questions

Table 1 summarizes the results of questions related to COVID-19, including self-rated current condition, presence of COVID-19 symptoms for self and family, and self-rated current level of stress. Most participants reported no changes in their physical health or experience of COVID-19–like symptoms (71.4%) since a week before. Four (3.2%) reported that they or their family members had COVID-19–like symptoms. All 4 reported being in touch with a health care provider to receive help.

Table 1. Demographic and COVID-19–related Characteristics (*N* = 126)

	Mean ± <i>SD</i> or Median	<i>n</i> (%)
Survey Methods		
Email survey		52 (41.3)
Telephone survey		74 (58.7)
Age (<i>n</i> = 118)	58.7 ± 18.4	
Young adults (late 10s-40s)		28 (23.7)
Middle aged adults (50s-60s)		58 (49.2)
Older adults (70s-90s)		32 (27.1)
Gender (<i>n</i> = 123)		
Male		42 (34.1)
Female		81 (65.9)
Self-rated current condition	3	
Much worse than usual (1)		0 (0)
Worse than usual (2)		10 (7.9)
About the same as usual (3)		90 (71.4)
Better than usual (4)		24 (19)
Much better than usual (5)		2 (1.6)
Self-rated physical health	3	
Much better than usual (1)		4 (3.2)
Better than usual (2)		28 (22.2)
About the same as usual (3)		81 (64.3)
Worse than usual (4)		13 (10.3)
Much worse than usual (5)		0 (0)
Symptoms of COVID-19		
No		122 (96.8)
Yes		4 (3.2)
COVID-19 information (<i>n</i> = 125)		
No		17 (13.6)
Yes		108 (86.4)
Perceived confidence	4	
Not at all confident (1)		2 (1.6)
A little confident (2)		5 (4)
Somewhat confident (3)		25 (19.8)
Confident (4)		59 (46.8)
Very confident (5)		35 (27.8)
Feeling of Stress/anxiety over the past week [1-10]	3.0 ± 2.2 (Median 2)	126

Abbreviation: *SD* = standard deviation.

About 14% replied that they did not think they had accurate information about COVID-19 to help them stay healthy. Similarly, about one quarter of participants (25.4%) were not entirely confident they could keep themselves safe from COVID-19 (5.6% were not confident, 19.8% were somewhat confident). When asked about feelings of stress or anxiety over the past week, 63.6% reported elevated levels of stress or anxiety, and 11.2% reported more than moderate levels of stress/anxiety. When asked whether they or someone in their household had a chronic condition that required medication, 59.8% ($n = 49$) answered “yes.” Participants who said “yes” also reported having access to the medications they needed and were taking them regularly.

Feelings of Loneliness and Social Connectedness

Four questions asked about social connectedness or isolation (see Table 2). In general, the participants’ low scores indicate greater social connectedness. Regarding feelings of loneliness, 11.1% reported not having someone to rely on, and 7.2% agreed that they felt alone. For feelings of isolation, 29.3% endorsed lacking companionship, and 32.8% felt isolated from others. In addition, 37.6% of participants requested to receive follow-up calls by an AMEN LHW.

Table 2. Feeling of Loneliness and Isolation* (N = 126)

	Mean ± SD	n (%)
Feeling of loneliness		
There is no one I can turn to.	2	
Strongly disagree (1)		61 (48.4)
Disagree (2)		47 (37.3)
Neither agree nor disagree (3)		4 (3.2)
Agree (4)		6 (4.8)
Strongly agree (5)		8 (6.3)
I feel completely alone. (n = 125)	1	
Strongly disagree (1)		70 (56.0)
Disagree (2)		43 (34.4)
Neither agree nor disagree (3)		3 (2.4)
Agree (4)		7 (5.6)
Strongly agree (5)		2 (1.6)
Feeling of isolation		
How often do you feel that you lack companionship?	1	
Hardly ever (1)		89 (70.6)
Some of the time (2)		29 (23.0)
Often (3)		8 (6.3)
How often do you feel isolated from others? (n = 125)	1	
Hardly ever (1)		84 (67.2)
Some of the time (2)		34 (27.2)
Often (3)		7 (5.6)
Feeling of loneliness and isolation summary score [10-40]	15.5 ± 5.8 (Median 15)	125

Abbreviation: SD = standard deviation.

*The feeling of loneliness and isolation summary score is calculated by summing the four scores for feeling of loneliness and feeling of isolation, and rescaling the range for convenience of interpretation.

Most Pressing Needs

About 50% of participants reported having pressing needs at the time of the survey: “Prayer request(s),” “Household items, such as toilet paper, soap, hand sanitizer,” and “Safe ways and places to be physically active” were endorsed most frequently. The majority of participants indicating a pressing need (86.2%) reported having family or friends to help them meet those needs. The AMEN team connected those without family or friends with requested resources.

Participants’ expressed needs differed by gender: males were more likely to request “safe ways and places to be physically active,” whereas “prayer requests” were the most popular needs among females. Although most respondents felt they had sufficient information, 28.8% requested information about effective strategies for staying healthy during the pandemic. About 38% of respondents requested a “follow-up call”. There were no statistically significant differences among the group who requested follow up calls vs “no need to follow-up” on most demographic or health variables such as age, self-rated current condition, self-rated physical health, symptoms of covid-19, and perceived confidence in self-care except **gender** of the respondent. Female respondents were more likely to request follow-up calls than male respondents in a nearly 2:1 ratio (male group = 24.4%, female group = 45.7%, Chi-square = 5.21, df = 1, p = 0.022).

Interestingly, the mode of survey administration revealed different responses. The telephone interview group requested follow-up calls at a significantly higher rate than those responding to the online survey (online survey group = 25%, telephone group = 46.6%, Pearson Chi-square = 6.03, df = 1, p = 0.014). Compared with the telephone interview group, the online group expressed more pressing needs. Surprisingly, adults >60 years old expressed *fewer* needs than did their younger counterparts.

Overcoming Negative Consequences of Physical Distancing

Participants were provided a list of common coping activities and could choose “all that apply” and add to the existing list. The most common coping strategies used during this early phase of COVID-19 were “praying or reading the Bible” and “talking with friends, church members or family” ($n = 54, 65.9\%$; see Table 3). Five participants reported performing all of the activity options. Those who selected “other” reported outdoor activities such as gardening and indoor activities such as home projects, cleaning, video games, coloring puzzles, and crafts.

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Qualitative Feedback

Most participants (over 64.6%) identified no pressing needs. However, the survey included mostly forced choice responses (with an option to specify “other”), making it quick and easy to administer and complete. Thus, the survey may not have captured the full range of needs. About 40% of participants who completed the survey requested follow-up calls from LHWs. In the follow-up calls, personal relationships and trust between LHWs and participants enabled the identification of other needs that may have been more difficult to capture with the survey alone. The LHW/participant phone calls provided important social and spiritual support. The LHWs were able to connect participants with existing church resources, as well as resources within the community. In addition, LHWs often prayed with participants who requested prayer, which strengthened social and spiritual support. Numerous participants and LHWs articulated that the calls helped mitigate against loneliness.

The AMEN research team conducted weekly Zoom meetings with the LHWs to process what the LHWs learned in follow-up phone calls. These team meetings provided an opportunity to discuss and address any additional unmet needs, including identification of and connection with community and church resources. Such needs included access to household items (7.3%) such as cleaning supplies, toilet paper, and hand sanitizer; access to food (6.1%); and safe ways to be physically active (6.1%). LHWs provided some direct support to congregants, such as delivering groceries and household items, assisting with completing applications for financial assistance, and providing information on local food banks. Additionally, the AMEN team created and shared a resource guide with the entire church community, which included information on

local programs, basic needs and financial assistance, online exercise classes, and spiritual and wellness information.

DISCUSSION

The majority of participants managed to maintain relatively high spirits and adhere to local physical distancing recommendations issued during the early phase of the COVID-19 pandemic. Overall, participants felt fairly confident about their ability to safely cope with this public health crisis; they expressed a high level of social connectedness and a low level of social isolation. These findings may seem counterintuitive, given published narratives regarding unmet needs and negative consequences of social isolation among AA communities.²⁰ However, despite relatively few needs identified from the survey, 37.6% expressed a desire to receive follow-up calls from LHWs. This suggests that participants may have been more inclined to share vulnerabilities during subsequent conversations after trust and rapport was built, rather than on initial survey. Early in the pandemic, leaders of both churches delivered Sunday services and Bible Study through digital platforms and proactively engaged congregant participation. In addition, our CBPR team has worked with the churches over the past year, training church-based LHWs to implement various health promotion programs. The assessment provided an opportunity to proactively reach out to congregants, consistent with the mission of both churches, while generating actionable data to address their needs. The majority (63.6%) reported some stress or anxiety, with 11.2% having more than moderate stress/anxiety. Our bivariate analysis indicated that the high levels of anxiety/stress were significantly associated with feelings of loneliness and isolation ($r = .340, p = 0.005$) and low level of confidence to stay healthy during the pandemic ($r = -.198, p = 0.027$). In addition, 10% felt that they lacked accurate information to remain healthy and safe from COVID-19. In response, we were able to provide

ongoing public education digitally, and our LHWs were able to assist congregants who expressed the need for personal follow-up and support.

These study findings have several limitations. The setting of the assessment was AA churches, which limited our ability to include individuals most vulnerable for social isolation. Social desirability bias might also have influenced some responses, because church-based LHWs conducted the assessment via telephone interviews. It was noteworthy that participants who responded to the online survey expressed more pressing needs than did telephone respondents. In addition, the timing of the assessment—at the beginning of the pandemic—also might have influenced the findings. It is plausible that people did not have many needs at the beginning of the pandemic or that it took a certain level of built trust with interviewers before participants would disclose their needs without embarrassment. Follow-up conversations with the LHWs uncovered more needs as the relationships and the level of trust matured over time.

Despite limited generalizability of our findings, this study has public health implications. The study reveals a rare positive example of how physical distancing in itself does not necessarily lead to social isolation and its negative consequences. Rapid response from church leadership to this unprecedented public health crisis, along with tight social networks and proactive outreach provided by AA churches, offered effective protective factors for many church congregants. As part of our CBPR program, these churches also engage church-based LHWs and volunteers to facilitate health promotion and resource coordination activities for congregants to improve the overall health of the AA community. Given this pandemic's uncovering of gaps in our community health infrastructure and devastating health disparities, it is also important to highlight the core lessons from our CBPR needs assessment. In particular, this study adds strong evidence for the vital role of AA churches

in providing social support to their congregants. Similarly, the role of LHWs in the AA community as health ambassadors is a significant contribution to the CBPR approach. LHWs can collect sensitive, yet actionable, data from people in need because of their unique position as trusted peers. Furthermore, the CBPR approach is an effective method to build infrastructure that supports healthier AA communities. Finally, given widespread suffering from elevated anxiety and stress and their close associations with feelings of loneliness and isolation, asking about loneliness is important, as a signal for greater mental health deficits within the population.

Our surveys and conversations with LHWs have prompted us to develop a series of interactive, educational discussion sessions: in collaboration with several existing peer support groups within each church, we have sponsored a series of interactive Zoom discussion sessions for the community. Topics include addressing grief, stress management, safe exercise routines in the COVID era, cooking healthy foods and recipe sharing, and many more. Most of these sessions are moderated by a panel consisting of LHWs from churches and other community members, including African American experts in topics of care. This close engagement via digital platforms has enabled us to keep the pulse of the community and continues to provide natural opportunities to develop and evaluate the effectiveness of timely interventions to boost physical and mental wellness within the AA community. The most valuable lesson that we have learned from this experience is that physical distancing in itself did not automatically lead to devastating psychological sequelae from social isolation. Through thoughtful alternative communication and trusted community support (LHWs, pastors, and the CBPR team), many AAs were able to cope with their stressful situation with positive attitudes.

Now that much community outreach, including government programs, has been forced to shift to remote rather than in-person communication during this prolonged pandemic period, significant infrastructure enhancement is showing that future community programs are likely to use technology-assisted platforms. Further analysis and evaluation of new strategies for outreach with traditionally underserved communities will strengthen the evidence for effective approaches in promoting holistic mental and physical wellness within communities of color.

References

1. Stafford K, Hoyer M, Morrison A. Racial toll of virus grows even starker as more data emerges. AP NEWS. 2020 Apr 18. Available from:
<https://apnews.com/8a3430dd37e7c44290c7621f5af96d6b>
2. Thebault R, Tran AB, Williams V. The Coronavirus is infecting and killing black Americans at an alarmingly high rate. The Washington Post. 2020 Apr 7. Available from:
www.washingtonpost.com/nation/2020/04/07/coronavirus-is-infecting-killing-black-americans-an-alarmingly-high-rate-post-analysis-shows/?arc404=true.
3. Yancy CW. COVID-19 and African Americans. JAMA. 2020;323(19):1891–2.
<https://10.1001/jama.2020.6548>
4. Social determinants of health: Know what affects health. Centers for Disease Control and Prevention [2020 Aug 19]. Available from: www.cdc.gov/socialdeterminants/index.htm
5. Graham H. Social determinants and their unequal distribution: clarifying policy understandings. Milbank Q. 2004;82(1):101–24. <https://doi.org/10.1111/j.0887-378X.2004.00303.x>
6. Assari S. Unequal gain of equal resources across racial groups. Int J Health Policy Manag. 2018;7(1):1–9. <https://doi.org/10.15171/ijhpm.2017.90>
7. Kaltmeier O, Breuer M. Social inequality. In: Kaltmeier O, Tittor A, Hawkins D, Rohland E, editors. The Routledge handbook to the political economy and governance of the Americas. New York, NY: Routledge; 2020. pp. 205–20.

8. Manduca R. Income inequality and the persistence of racial economic disparities. *Sociol Sci.* 2018;5:182–205. <https://doi.org/10.15195/v5.a8>
9. Solomon D, Maxwell C, Castro A. Systematic inequality and economic opportunity. Center for American Progress. 2019 Aug 7 [cited 2020 Aug 28]. Available from: www.americanprogress.org/issues/race/reports/2019/08/07/472910/systematic-inequality-economic-opportunity
10. Seeman TE. Social ties and health: the benefits of social integration. *Ann Epidemiol.* 1996;6(5):442–51. [https://doi.org/10.1016/s1047-2797\(96\)00095-6](https://doi.org/10.1016/s1047-2797(96)00095-6)
11. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLoS Med.* 2010;7(7):e1000316. <https://doi.org/10.1371/journal.pmed.1000316>
12. Holt-Lunstad J, Smith TB, Baker M, Harris T, Stephenson D. Loneliness and social isolation as risk factors for mortality: a meta-analytic review. *Perspect Psychol Sci.* 2015;10(2):227–37. <https://doi.org/10.1177/1745691614568352>
13. Pantell M, Rehkopf D, Jutte D, Syme SL, Balmes J, Adler N. Social isolation: a predictor of mortality comparable to traditional clinical risk factors. *Am J Public Health.* 2013;103(11):2056–62. <https://doi.org/10.2105/AJPH.2013.301261>
14. Campbell MK, Hudson MA, Resnicow K, Blakeney N, Paxton A, Baskin M. Church-based health promotion interventions: evidence and lessons learned. *Annu Rev Public Health.* 2007;28:213–34. <https://doi.org/10.1146/annurev.publhealth.28.021406.144016>
15. Wallerstein NB, Duran B. Using community-based participatory research to address health disparities. *Health Promot Pract.* 2006;7(3):312–23. <https://doi.org/10.1177/1524839906289376>

16. National Council for Behavioral Health. Mental health first aid. c2020 [cited 2020 Aug 28].
Available from <https://www.mentalhealthfirstaid.org/>
17. Social determinants of health: guide to social needs screening. American Academy of Family Physicians; c2019 [cited 2020 Aug 28]. Available from:
www.aafp.org/dam/AAFP/documents/patient_care/everyone_project/hops19-physician-guide-sdoh.pdf
18. Russell DW. UCLA Loneliness Scale (Version 3): reliability, validity, and factor structure. *J Pers Assess*. 1996;66(1):20–40. https://doi.org/10.1207/s15327752jpa6601_2
19. Hughes ME, Waite LJ, Hawkley LC, Cacioppo JT. A short scale for measuring loneliness in large surveys: results from two population-based studies. *Res Aging*. 2004;26(6):655–72. <https://doi.org/10.1177/0164027504268574>
20. Alcaraz KI, Eddens KS, Blase JL, Diver WR, Patel AV, Teras LR, et al. Social isolation and mortality in US Black and White men and women. *Am J Epidemiol*. 2019;188(1):102–9. <https://doi.org/10.1093/aje/kwy231>