

The CDC Foundation's COVID-19 emergency response pilot project: a case study in knowledge brokering for older adults and caregivers

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Key points

- This project identifies the CDC Foundation as a knowledge broker during the COVID-19 pandemic
- Four pilot projects addressed the unmet health and social needs of older adults and their caregivers during the pandemic
- Knowledge brokering can bridge the knowledge-to-action gap during a public health emergency response

Abstract

Objective: The coronavirus disease 2019 (COVID-19) public health emergency has disproportionately affected older adults and their caregivers, requiring evidence-based and coordinated efforts to meet their health and social needs. This paper describes the role of the CDC Foundation as a knowledge broker working with public health partners to rapidly meet the unmet health, social, and other needs of older adults and caregivers during the COVID-19 pandemic.

Type of program or service: Qualitative case study using the *Role Model for Knowledge Brokering* framework to describe a project that translated public health research into practice during the COVID-19 pandemic response.

Methods: This case study documents the experiences of a US-based foundation serving as a knowledge broker, carrying out three roles: establishing research partnerships to study unmet health, social, and other needs of older adults and caregivers during COVID-19; coordinating with partners to identify evidence-based strategies; and rapidly implementing four emergency response pilot projects.

Results: The emergency response pilot projects created included: an online resource library – *SearchFindHelp.org* – of public health programs and resources for organisations serving older adults and caregivers; digital literacy training for older adults and caregivers; multicultural caregiver tools to serve rural and Asian American and Pacific Islander older adults; and a grant program to expand local, direct services for older adults. *SearchFindHelp.org* had 46 781 new users and 101 908 total views from June 2021–March 2023. Older adults and caregivers who participated in digital literacy training from May–September 2021 were more likely to find health resources online and schedule and attend an online doctor's visit. A paid media campaign in

December 2021 was launched to raise awareness of multicultural caregiver tools. Ten community organisations expanded direct, local services for older adults.

Lessons learnt: This project highlights the valuable role a foundation can play as a knowledge broker in rapidly translating research into practice during a public health emergency response, to address emerging community needs.

Introduction

The coronavirus disease 2019 (COVID-19) is a global public health emergency (PHE), disproportionately affecting older adults and their caregivers.^{1,2} Adults aged 50 years and older have increased risks for serious illness and death, and these risks rise with age. Public health measures to prevent viral transmission, such as social distancing, contributed to adverse effects for older adult wellbeing, including social isolation³, deferral of medical care⁴, and reduced access to basic necessities.^{5,6} Unpaid caregivers of older adults, including family and friends, assumed increased responsibilities during the pandemic, helping older adults manage social and health needs, including activities important for daily living.⁷ As care recipients' needs increase, so do caregivers' responsibilities, increasing the burden and strain on caregivers. In response to these challenges, the CDC Foundation, an independent, non-profit organisation in the US, conducted research to identify unmet health, social, and other needs of older adults and caregivers and implement solutions.

Knowledge brokering

Research translation is a complex and time-consuming process.⁸ Bridging the gap between research and practice requires coordination, information sharing between partners (e.g., governmental, non-profit, and academic organisations), and resources and capacity for partners and communities to act.⁹ Knowledge brokering is one approach to translate research into practice. Knowledge brokers (KB) bridge the gap between research and action.¹⁰ They are the creators and managers of information, linking agents that connect creators and users of information and capacity builders that bring together partners to translate information into action.¹¹

Knowledge brokering was developed in the private sector and operationalised in the 1990s into frameworks applicable to the public sector as a mechanism for practical capacity building.¹² In 2016, Glegg and Hoens created the *Role Model for Knowledge Brokering* in healthcare framework, which delineated the roles of KBs into five domains: an information manager promoting access to health research; a linking agent cultivating a "shared agenda" and engagement among community partners; a capacity builder supporting organisations in making changes; a facilitator supporting users of

knowledge in decision making; and an evaluator of KB activities. KBs collaborate with public, private and community sector partners, such as community-based organisations (CBOs), to achieve health outcomes.¹³

This paper describes the CDC Foundation's roles as a KB, working in collaboration with the US Centers for Disease Control and Prevention (CDC) and public health partners to rapidly address unmet health, social, and other needs of older adults and caregivers during COVID-19.

Methods

This case study describes the CDC Foundation's use of the Glegg and Hoens knowledge brokering framework¹³ to implement a three-phased project (Figure 1). Firstly, the CDC Foundation acted as an information manager, establishing research partnerships to identify unmet needs of community-dwelling older adults aged 50 and older and their unpaid caregivers during the COVID-19 pandemic. Secondly, the CDC Foundation acted as a linking agent, coordinating with partners to identify evidence-based strategies to address these unmet needs. Thirdly, the CDC Foundation was a capacity builder, supporting partners in rapidly implementing emergency response pilot projects that were aligned with evidence-based strategies.

Phase 1: Establish research partnerships

Between October and December 2020, the CDC Foundation, with technical assistance from the CDC, collaborated with partners to act as an information manager and conduct a needs assessment of older adults and caregivers in the US during COVID-19. Partners were NORC at the University of Chicago, a non-profit research organisation; Burness, a non-profit health communications organisation; and TMNCorp, a small woman-owned marketing and communications company. Methods included a nationally representative survey of older adults; focus groups with older adults and caregivers; surveys and interviews with organisations serving older adults; and secondary data analysis of caregiver surveys and public social media posts. The study found older adults and caregivers had unmet health, social, and other needs during the pandemic, including resources to address social isolation; digital

literacy training; multicultural public health resources; and direct services, as described elsewhere.⁷

Phase 2: Coordinate with partners to develop supportive strategies

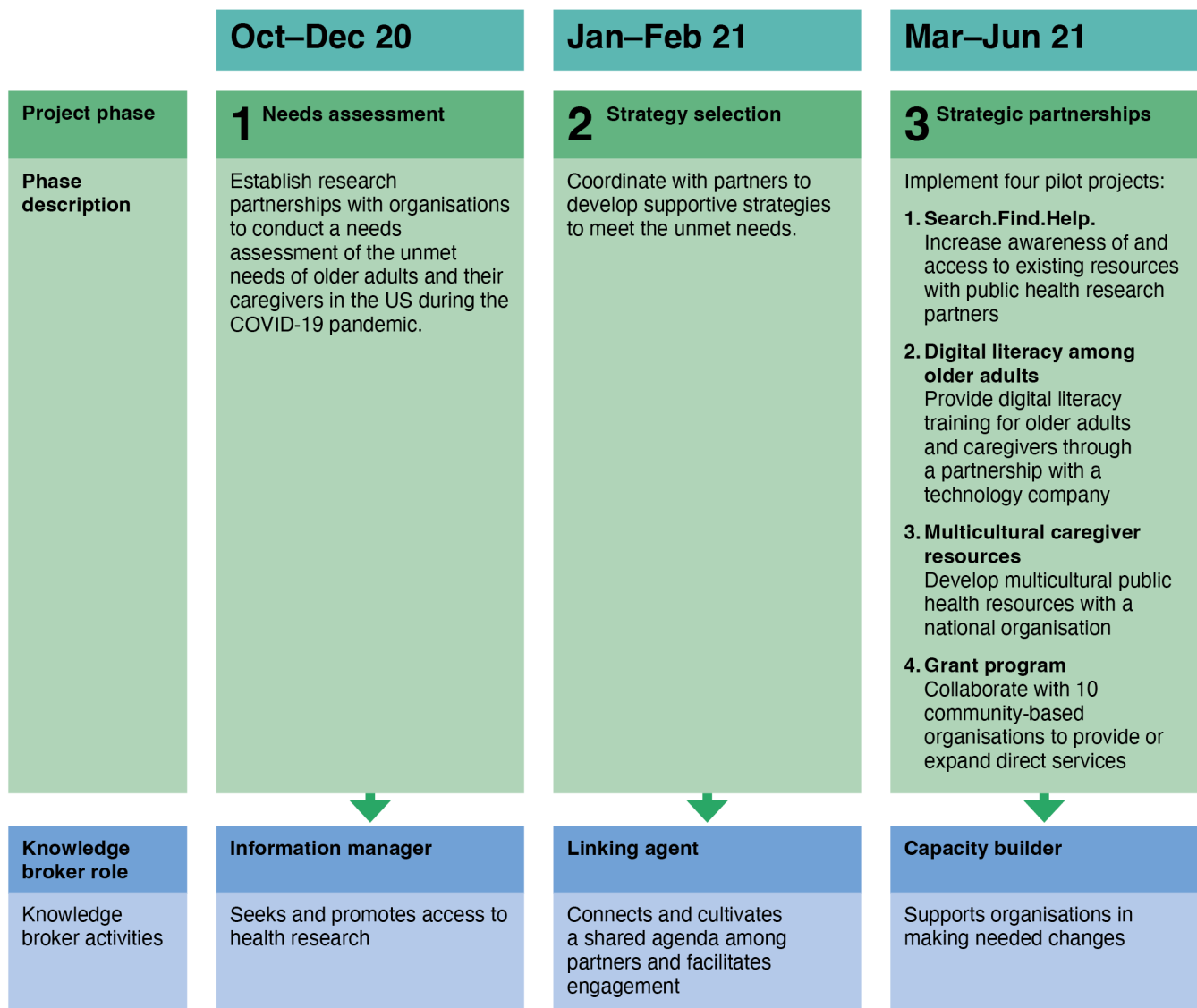
Between November 2020 and January 2021, the CDC Foundation convened meetings with partners to act as a linking agent and develop and select strategies to immediately address the identified unmet needs of older adults and caregivers, while considering resources, feasibility and timeline. Four strategies were selected:

1. Increase awareness of and access to existing resources to support older adults and caregivers
2. Conduct digital literacy training for older adults and caregivers
3. Develop multicultural public health resources
4. Provide direct services to local communities.

Phase 3: Implement pilot projects to translate research into practice

Between February and June 2021, the CDC Foundation selected, funded and provided technical assistance to national and local organisations to design and implement pilot projects aligned with the four strategies.

Figure 1. Project phases and knowledge brokering roles



Results of four pilot projects

The CDC Foundation served as a capacity builder by partnering to implement solutions for older adults and their caregivers during COVID-19. Below, we describe four pilot projects.

Pilot project 1: *Search.Find.Help*

While programs and resources existed to support older adults and their caregivers during the COVID-19 pandemic, these were offered by different organisations and not accessible in a central location.⁷ The CDC Foundation worked with NORC and Burness to create *Search. Find. Help.* (SFH). SearchFindHelp.org, is a free, searchable online resource library connecting organisations that serve older adults/caregivers to 300 existing programs and services to help older adults and caregivers during PHEs.¹⁴ To develop SFH, NORC conducted an environmental scan of peer-reviewed literature and websites of government agencies and national and local organisations that serve older adults and caregivers. Guided by project focus areas, NORC identified 300 programs and resources to support older adults' and caregivers' physical and mental wellbeing.⁷ From June 2021–March 2023, SFH had 46 781 new users and 101 908 total views, demonstrating the reach of this resource.

Pilot project 2: Digital literacy among older adults

The needs assessment identified digital literacy as an unmet need of older adults and their caregivers.⁷ CDC Foundation partnered with a technology organisation, Older Adults Technology Services (OATS) from the AARP (a national organisation in the US advocating for adults older than 50 years), to create and launch a virtual course on digital essentials for older adults and caregivers, which was marketed through existing Facebook groups and accommodated 492 participants. Between May and September 2021, OATS developed and disseminated a live digital training about technology, including a website with recorded sessions and supporting materials. OATS conducted a virtual survey post-training ($n = 102$, 70% caregivers, 30% older adults). Based on the survey, participants self-reported that they were more likely to find health resources online (94%) and schedule and attend a doctor's visit online (69%) following the training.

Pilot project 3: Multicultural caregiver resources

The environmental scan identified limited resources addressing the specific needs of racial and ethnic subpopulations of older adults and their caregivers (e.g., social isolation, deconditioning, deferral of medical care and elder abuse) during PHEs.⁷ To address this unmet

need, the CDC Foundation partnered with AARP to modify existing caregiving resources for rural and Asian American and Pacific Islander populations, based on the findings in phase one. AARP adapted and translated three resources for these multicultural audiences to increase knowledge of caregiving and practices to support wellbeing during PHEs. In December 2021, AARP ran a paid media campaign to raise awareness of its caregiving resources for Chinese, Vietnamese and Korean speakers in rural US communities, generating 10 099 097 impressions across digital media.

Pilot project 4: A grant program to expand local, direct services

During the COVID-19 pandemic, older adults and their caregivers had unmet needs for direct services such as food, household supplies and transportation.⁷ The CDC Foundation established a grant program awarding US\$1 449 962 (A\$2.16 m) to 10 CBOs, including two National Tribal Organisations. From June–December 2021, grantees provided local, direct services to older adults and caregivers, focusing on disproportionately affected populations. The grant expanded services for addressing social isolation and loneliness, access to and use of technology, obtaining household supplies and necessities, transportation, financial assistance, health services, and respite care.

Lessons learnt

The CDC Foundation's pilot projects aimed to strengthen services and support for older adults and their caregivers during the COVID-19 pandemic. This project offers lessons for future efforts in applying KB principles during PHEs.

Firstly, organisations can serve in multiple roles as a KB during a PHE. As an information manager, the CDC Foundation commissioned research, identifying strategies to respond to the unmet needs of the population. As a linking agent, the Foundation encouraged public health partners to meet, discuss projects and leverage shared expertise and networks. In this linkage role, the Foundation created space for dialogue about tailoring interventions to different populations and contexts, addressing challenges, leveraging opportunities, and sharing lessons learnt. These connections among partners resulted in an unexpected cross-pollination of ideas across projects, strengthening each project. As a capacity builder, the CDC Foundation funded CBOs to provide resources and services within their local communities. While evaluating the long-term impacts of these pilot projects was beyond our scope, research suggests that investing in community-based programs and services for older adults can positively affect their health and wellbeing.¹⁵

Secondly, while knowledge translation is a complicated process, organisations can carry out KB

roles on a tight timeline. Most of this project was carried out in 9 months during the peak of the COVID-19 pandemic. The CDC Foundation remained nimble and responsive, strategically leveraging partners with capabilities and existing relationships to quickly reach older adults and caregivers in their communities. This is consistent with research suggesting that CBOs are uniquely positioned to quickly reach and support populations with special healthcare needs during emergencies because they have built trust within communities.¹⁶

Our study has several limitations. The needs assessment was based on data from a sample of older adults and caregivers, and findings may not reflect all unmet needs during the pandemic. Secondly, participants in the digital literacy pilot project may have been familiar with technology prior to the training; the post-training survey did not control for past experiences.

Another limitation was the lack of time and resources required during the emergency response to evaluate KB activities to determine the quality and effectiveness of the process. Where possible, future efforts should evaluate KB activities to gain insights into the challenges and opportunities of KB within an emergency response context. Future case studies of KB activities should apply the facilitator and evaluator role domains¹³, which was beyond the scope of this project.

This may be the first application of KB in a PHE, thereby extending the work of KB scholars in healthcare settings¹³ to the field of emergency preparedness. Future research should focus on refining the application of KB in PHEs.

Conclusion

The CDC Foundation served as a knowledge broker to rapidly translate research into practice during the COVID-19 pandemic in the US. The CDC Foundation rapidly commissioned research, identified strategies, and strategically leveraged partners to implement evidence-based projects that served older adults and their caregivers. The success of this project highlights the value of applying knowledge brokering to bridge the knowledge-to-action gap during a response to a public health emergency.

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Peer review and provenance

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Competing interests

None declared.

Author contributions

AW, AB, AH, HB, RS and RA were responsible for conceptualisation, design, methods, writing, reviewing, editing, and revising the manuscript. JF was responsible for the analysis of data, reviewing, editing, and revising the manuscript. LI was responsible for advising on the manuscript's design, reviewing, editing, and revising.

References

1. National Center for Chronic Disease Prevention and Health Promotion (US). COVID-19 risks and information for older adults. Atlanta: CDC; 2022 Feb [cited 2023 Mar 22]. Available from: www.cdc.gov/aging/covid19
2. National Center for Chronic Disease Prevention and Health Promotion (US). Caregiving for family and friends – a public health issue. Atlanta: CDC; 2019 Jul [cited 2022 Jun 13]. Available from: www.cdc.gov/aging/caregiving/caregiver-brief.html
3. Sepúlveda-Loyola W, Rodríguez-Sánchez I, Pérez-Rodríguez P, Ganz F, Torralba R, Oliveira DV, Rodríguez-Mañas L. Impact of social isolation due to COVID-19 on health in older people: mental and physical effects and recommendations. *J Nutr Health Aging*. 2020; Sep 25:1–10.
4. Czeisler MÉ, Marynak K, Clarke KE, Salah Z, Shakya I, Thierry JM, et al. Delay or avoidance of medical care because of covid-19–related concerns — United States, June 2020. *MMWR Morb Mortal Wkly Rep*. 2020;69:1250–57.
5. Steinman MA, Perry L, Perissinotto CM. Meeting the care needs of older adults isolated at home during the COVID-19 pandemic. *JAMA Intern Med*. 2020;180(6):819–20.
6. National Association of Area Agencies on Aging, #AAAsAtWork for Older Adults: A snapshot of area agency on aging responses to COVID-19. Last modified July, 2020 [cited 1 Feb 23]. Available from: www.usaging.org/covid19report
7. NORC. Needs assessment and environmental scan report: Maintaining physical and mental well-being of older adults and their caregivers during public health emergencies. Chicago: NORC at the University of Chicago. 2021 Jan [cited 2021 Nov 22]. Available from: prod-aem.norc.org/content/dam/norc-org/documents/standard-projects-pdf/ESandNARReportNarrative.pdf

8. Gentry S, Mildren L, Kelly MP. Why is translating research into policy so hard? How theory can help public health researchers achieve impact? *Public Health*. 2020;178:90–96.
9. Koh HK, Oppenheimer SC, Massin-Short SB, Emmons KM, Geller AC, Viswanath K. Translating research evidence into practice to reduce health disparities: a social determinants approach. *Am J Public Health*. 2010;100(S1):S72–80.
10. Canadian Health Services Research Foundation. The theory and practice of knowledge brokering in Canada's health system. Ottawa: CHSRF; 2003 Dec [cited 2022 Jun 13]. Available from: kpathways.ca/system/files/resources/2019-02/Theory_and_Practice_e.pdf
11. Ward V, House A, Hamer S. Knowledge brokering: the missing link in the evidence to action chain? *Evid Policy*. 2009;5(3):267–79.
12. Oldham G, McLean R. Approaches to knowledge-brokering. Winnipeg: International Institute for Sustainable Development; 1997 May [cited 2022 Jun 13]. Available from: www.iisd.org/system/files/publications/networks_knowledge_brokering.pdf
13. Glegg SM, Hoens A. Role domains of knowledge brokering: a model for the health care setting. *J Neurol Phys Ther*. 2016;40(2):115–23.
14. SearchFindHelp.org. Atlanta: CDC Foundation; 2021 Jun [cited 2022 Jun 23]. Available from: searchfindhelp.org/
15. Stone RI. Investing in the social dimensions of health: community-based programs can bridge the medical and social worlds to meet older adults' needs. *Generations*. 2019: 63–69.
16. Nick GA, Savoia E, Elqura L, Crowther MS, Cohen B, Leary M, Wright T, et al. Emergency preparedness for vulnerable populations: People with special health-care needs. *Public Health Rep*. 2009; 124(2):338–43.

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