Evidence-Based Program Delivery for People Living With Chronic Conditions

This fact sheet is part of a series for health education specialists and other professionals to enhance their understanding and dissemination of evidence-based lifestyle management programs related to arthritis; provide ideas for reaching populations that suffer disproportionately due to arthritis; and share lessons learned during the COVID-19 pandemic on alternative ways to effectively disseminate evidence-based lifestyle management programs to enhance the quality of life of individuals living with arthritis.

Chronic conditions affect over 129 million adults over 18 (Boersma et al., 2020). Chronic conditions impact many people of different ages. However, as people get older, they tend to develop more chronic conditions (Adams, 2017). The Centers for Disease Control and Prevention (CDC) estimates that six in 10 adults have at least one chronic condition. An estimated four in 10 adults are living with two or more (multiple) chronic conditions (National Center for Chronic Disease Prevention and Health Promotion, 2022). Moreover, the rates related to chronic conditions are higher for Black, Latino, American Indian, and Alaskan Native adults (Hill et al., 2023) and for rural-dwelling adults (National Center for Chronic Disease Prevention and Health Promotion, 2023). Chronic conditions are also more common for older adults. In the United States, 85% of older adults have at least one chronic health condition, and 60% have multiple chronic conditions (National Center for Chronic Disease Prevention and Health Promotion, 2022). By 2030, one in five people in the United States (72.7 million) will be 65 years or older, with 83.7 million older adults projected by 2050 (Olivari et al., 2018).

Health Disparity Focus

Rates for chronic conditions are higher among rural-dwelling adults, and for Blacks, Latinos, Alaskan Natives, and American Indians.

The CDC and the Administration for Community Living have recognized several evidence-based programs (EBPs) that address chronic conditions and provide the following benefits:

- Improving participants' health and well-being
- Reducing disease and injury
- Improving the quality of life of participants, caregivers, and other family members
- Alleviating the health care cost burden for people affected by chronic conditions

The list of CDC-recognized EBPs is available online at https://oaaction.unc.edu/aaebi/. ACL-recognized programs are available via a searchable database online at https://www.ncoa.org/evidence-based-programs.

Chronic conditions include more common conditions like hypertension, diabetes, and arthritis, along with less common but still impactful conditions like HIV and anxiety. EBPs addressing these conditions are based on sound behavior change theories, teaching problem-solving, goal setting, and activity planning.

BENEFITS OF USING EBPS

- ☑ **Replicable Strategies**
- ☑ **Proven Effectiveness**
- ☑ **Public and Private Funding Available**

As the population of middle-aged and older adults living with chronic conditions increases, so will the proportion of people who will benefit from EBPs. These EBPs offer replicable strategies that are proven effective to promote health and prevent disease. Federal, state, and private sources fund these programs, which are available in communities across the country. EBPs are an integral part of successful strategies to prevent falls, support caregivers, increase social connections, and manage chronic conditions including diabetes, pain, depression, and arthritis.

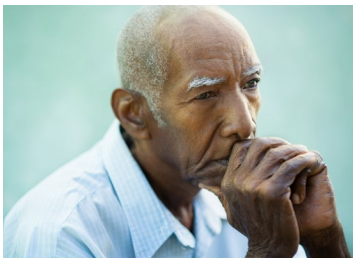
COVID-19 and Remote Delivery of EBPs

Even with vaccines, older adults are still hesitant to engage with in-person programs, whether or not participants wear masks.

Before COVID-19, over one million older people took part in primarily in-person EBPs to support their health and well-being in their communities. The onset of the COVID-19 pandemic prompted the quick adaptation of program delivery formats. Program administrators pivoted so that in-person delivery became remote delivery (e.g., phone, mail, videoconferencing, and online).

Although lockdown policies have ended, many older adults—and the organizations that engage them—continue to feel unsafe with in-person, indoor services. Even with vaccines, older adults are still hesitant to engage with in-person programs, whether or not participants wear masks. Because of this, skills enhanced by EBPs are even more important as older people living with multiple chronic conditions create "new normal" lives in pandemic times. With this in mind, both the CDC and the Administra-

tion for Community Living plan to continue supporting the dissemination and delivery of remotely delivered EBPs beyond the COVID-19 pandemic.



The COVID-19 pandemic exacerbated health risk factors, such as social isolation, loneliness, and depression. Recent studies (Gray et al., 2022; Li et al., 2021; Sheth et al., 2021; Patel et al., 2022) suggest that remote EBP delivery can address those risk factors. Furthermore, these programs can also help adults improve healthy behaviors and manage chronic conditions. As we move toward a postpandemic society, many adaptations and best practices developed to enable remote delivery during the pandemic will likely be integrated into standard program delivery options.

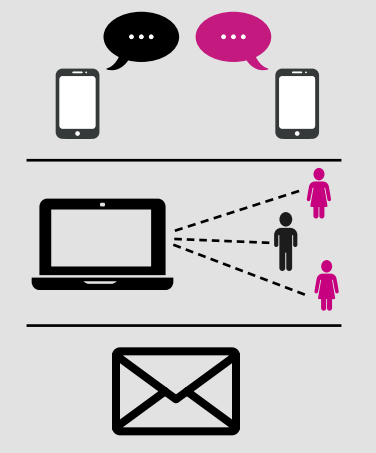
CURRENT RESEARCH

The goal of these fact sheets is to identify promising practices, strategies, opportunities, and challenges of adopting and delivering remote EBPs. This fact sheet is based on recent findings from a national evaluation of remote EBP reach, effectiveness, and implementation. The evaluation was organized by the Society of Public Health Education (SOPHE), Evidence-Based Leadership Collaborative (EBLC), and University of Washington's Health Promotion Research Center (UW HPRC), with additional funding support from RRF for Aging Foundation and the Administration on Community Living.

Methods of Remotely Delivering EBPs

Because one size doesn't fit all, many evidence-based health promotion and disease prevention programs address different topics. Programs cover chronic disease self-management education, arthritis management, falls prevention, behavioral health, physical activity, nutrition, caregiver support, and more. Similarly, there are various modes and methods to remotely deliver evidence-based health promotion curricula. Formats for remotely facilitating EBPs cover several strategies (National Council on Aging, 2021).

- Synchronous: Participants engage with the instructor and peers in real-time with an online video platform or via phone. Programs may be held one-on-one or in small groups using a conference line.
- Asynchronous online: The course curriculum and materials are available on-demand for participant access and do not require real-time interactions.
- Mailed: Mailed programs are often self-paced, and course materials go directly to participants. Some programs may be both mailed and held over videoconferencing or offer telephone support. These programs may be synchronous or asynchronous.



Adaptations for remote EBP delivery have been based on context (e.g., shorter, smaller classes with longer duration) and for equity (e.g., phone formats, autogenerated captioning). Content has been largely unchanged except where safety is concerned.

Benefits of Remotely Delivering Evidence-Based Health Promotion

In 2021–2022, SOPHE, EBLC, and UW HPRC partnered with national policymakers and local organizations to evaluate remote EBP delivery reach, effectiveness, and implementation. The process evaluation included responses from 200 remote EBP providers and over 100 organizations, covering 23 EBPs. The outcome evaluation included responses from 600 older adults taking part in five EBPs. Organizations reaching people of color and rural populations were engaged to focus on health equity.

DIGITAL DIVIDE

- According to the outcome evaluation for the five EBPs, between the start of the program and participants' 6-month follow-ups, EBP participants significantly improved in these areas:
  - Health
  - Energy
  - Sleep quality
  - Loneliness
  - Depressive symptoms
  - Social needs
  - Tech anxiety
- Participants shared that EBPs helped them learn how to live healthier lives, be socially connected, and improve their access to programs.
- Three in four providers felt that program effectiveness was maintained when switching from in-person to remote delivery. Moreover, EBPs also supported social connectedness and improved comfort with using technology.
- Remote EBPs were reasonable and acceptable, and for some, improved attendance.

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Participants, providers, and EBP administrators also shared several specific advantages of remote delivery EBPs, which include but are not limited to these:

- Reaching those who cannot participate in in-person programming, such as
  - People with physical disabilities
  - People with multiple complex health conditions
  - People with limited access to transportation
  - People living in remote or rural areas
- Engaging nontraditional and new populations, including
  - Caregivers who may be unable to access in-person programming due to at-home caregiving responsibilities
  - People from wider geographic areas
  - Men
  - Younger older adults (often defined as age 55–74) discouraged by stigma associated with senior centers that often host EBPs
- Using remote delivery guidelines and distance training to start and facilitate remote EBPs, which lets EBP leaders work from home and offer technology support before and during program delivery

Challenges of Remotely Delivering Evidence-Based Health Promotion

The COVID-19 pandemic forced EBPs to adopt a remote delivery approach during quarantine and social distancing. As a result, many programs now incorporate remote delivery into their long-term and routine program administration. However, remotely delivering EBPs presents a unique set of challenges, including but not limited to these situations:

- Adopting technology platforms for widespread use. This will make programs more accessible, especially among both EBP participants and providers with lower rates of comfort using technology.
- Improving program reach. Some EBP participants and providers, such as rural and low-income populations, have limited access to the internet, data plans, and computers.
- Updating program elements. In the process evaluation, 25% of providers recommended changes to the program format, frequency, or duration. For example, a longer program duration would help build rapport, improve participants' comfort using remote modes, or increase flexibility with allowed remote modalities.

Opportunities for Improving Remotely Delivered Evidence-Based Health Promotion

Strategies for Improving Remote EBP Reach

To engage older adults who are underserved, EBP delivery organizations partnered with many trusted people and organizations:

- Faith leaders and groups, such as medicine men on American Indian reservations and Black churches
- Senior centers
- Aging and long-term care service networks
- Retirement groups
- Health care settings, like managed-care organizations and clinics in low-income regions
- Other organizations

These warm handoffs can help mitigate fears and concerns about remote programs. However, during the pandemic, these handoffs were hindered because many organizations were overwhelmed and understaffed.

Trusted organizations can assist with a warm handoff to win the confidence of underserved older adults.

Approaches for Improving Access to Technology

Some delivery organizations received donations, grant funding, or reallocated funds to provide or loan tablets, laptops, or internet hotspots. Although these loans helped with access, they were sometimes logistically or technologically challenging. Because of this, volunteers or staff addressed these issues via one-on-one tech support

for EBP participants before and during classes. Phone-based programs can also help address some challenges as more people have access to—or are comfortable using—a landline or cell phone. However, more engagement strategies may be needed as participants and leaders cannot see each other.

Future Policies and Practices

Future policies and practices can incorporate training to address older adults' lack of access to or comfort with technology. Furthermore, making broadband internet a public utility for all will help improve access to resources and remove one of the fundamental causes of health inequities. EBP delivery by phone and mail provides another avenue for closing the digital divide.

Engagement of underserved older adults can be facilitated via outreach to trusted community leaders or sources. Additionally, in the evaluation, managers reported lower acceptability of some remote delivery modes than leaders did (Steinman, 2023). Since the reasons for dropout were not known by many providers, opportunities remain for improving acceptability and participation. Last, new delivery and financing mechanisms may better support staffing, funding, and other resources to establish, engage, and deliver remote programs alongside in-person programming.

Remote delivery strategies are becoming an integral part of the administration of evidence-based health promotion and disease prevention programs. Ongoing and future research will continue to evaluate the success and challenges of adapting and offering remote EBPs.

Additional Resources to Learn More About Remote EBPs

Administration for Community Living Health Promotion and Disease Prevention Programs: https://acl.gov/programs/health-wellness/disease-prevention

Centers for Disease Control and Prevention Lifestyle Management Programs: https://www.cdc.gov/arthritis/interventions/index.htm

Evidence-Based Leadership Collaborative: www.eblcprograms.org

- http://www.eblcprograms.org/about-us/news/

National Council on Aging Database of EBPs: https://www.ncoa.org/evidence-based-programs

- https://www.ncoa.org/article/tools-for-reaching-a-remote-audience
- https://www.ncoa.org/article/tracking-health-promotion-program-guidance-during-covid-19

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