

How do in-person health promotion programs work when delivered remotely?

*Lessons learned from a national process and outcome evaluation to improve older adult health equity*

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2023 CDC Arthritis Management and Wellbeing Recipient and Partners Meeting

October 19, 2023



# Acknowledgements

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ACL: Donna Bethge, Shannon Skowronski, Leshia Spencer-Brown

CDC: Anika Foster, Erica Odom, Anamika Rajguru

EBLC: Paige Denison (SG), Kate Lorig (SMRC)

HPRC: Erica Chavez Santos, Kelly Chadwick, James Kelley, Snowy Johnson, Marlana Kohn, Caitlin Mayotte, Elspeth Rensema, Sruthi Sravanam, Anne Turner

NCOA: Kathy Cameron, Jennifer Tripken

RRF: Amy Eisenstein

RTI: Heather Menne, Madeline Murray

SOPHE: Elaine Auld, Jordan Buckley, Jade Hackley, Clarissa Montes, Doreleena Sammons Hackett, Sana Siddique



# My lens

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## Positionality

### Evidence-based program (EBP)...

- Researcher and evaluator
- Administrator
- Counselor (“Leader”)
- Trainer
- Coach/TA Provider
- Partner



# **Plan for today's presentation**

What we did and why

What we learned

Implications for your AAEBI practice



# Background

COVID-19 context and need for EBPs to be done remotely



What was Happening three years ago...

March 2020

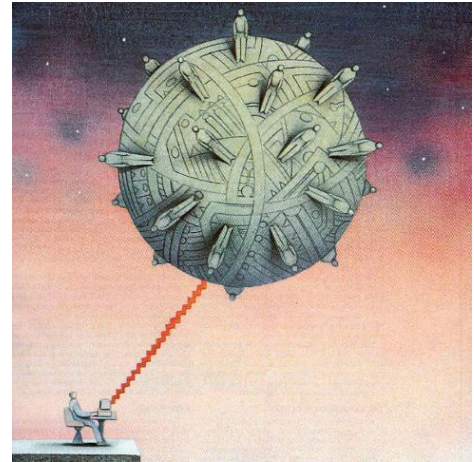
# **COVID-19 context, EBPs and equity**

**Older adults** were disproportionately impacted by COVID-19

**AAEBIs** are delivered via **organizations** that **reach** and **empower** older adults who are **historically underserved**

**“Telehealth”** presented both opportunities and challenges

Opportunity to address rising **social isolation** and **loneliness**



# Shift to delivering EBPs remotely

Asynchronous online

Video-conferencing

Mailed + phone

Mailed, self-paced

Combinations







# What we did

Methods for conducting the evaluation

# **Purpose**

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**Goal:** To evaluate remote EBPs:

- Do remote EBPs work? (*effectiveness / outcome*)
- How are remote EBPs working? (*implementation / process*)

**Potential Impact:** To improve equitable **access** to quality care and health **outcomes** among older adults – prioritize underserved by clinical care



# **Mixed methods evaluation**

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Quantitative = what is happening

Qualitative = why and how it's happening

Integrating: compare, contrast, expand...

Stories and data → guide policy and practice



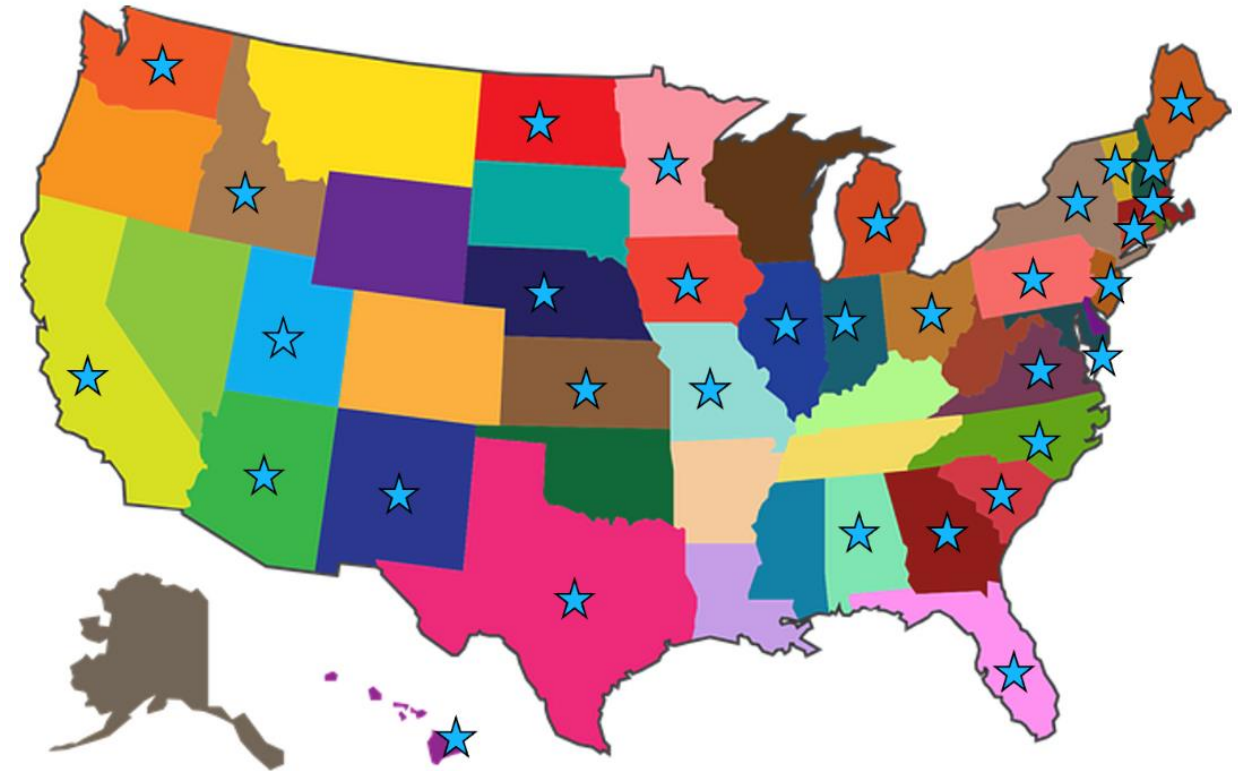
# Participants

## Outcome evaluation

- 586 EBP participants
- 37 organizations
- 16 states
- 5 EBPs

## Process evaluation

- 198 EBP providers (123 leaders)
- 107 organizations
- 33 states
- 31 EBPs



# EBP participant characteristics (N = 586)

Mean (SD) age  
64 (12)

Women  
83%

People of Color\*  
36%

Rural  
14%

Poor / fair self-rated  
health  
43%

Mean (SD) chronic  
conditions\*\*  
2.5 (1.7)

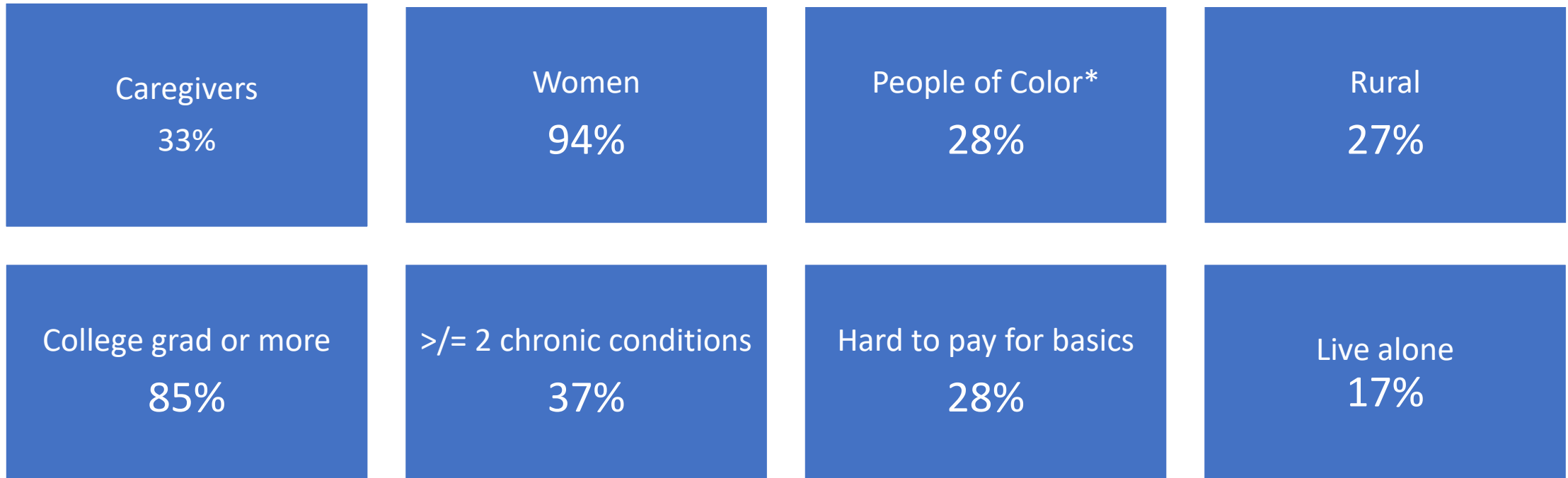
Hard to pay for basics  
34%

Live alone  
39%

\*27% Black/African American, 6% Latine, 4% Asian, 1% American Indian/Alaskan Native

\*\*50% hypertension, 45% diabetes, 28% mental health conditions, 25% osteoarthritis

# EBP leader characteristics (N = 123)



\*13% Black/African American, 12% Latine, 4% Asian, 1% Biracial

43% identified as CHW or other lay health provider and 25% as certified health professional

# What we learned

Findings from the process and outcome evaluation



# Do remote EBP participants improve their health over time?

Statistically significant improvements enrollment to 6-months

Overall (N = 289)	CSDMP videoconf (N = 69)	CPSMP phone/mail (N = 47)	DSMP videoconf (N = 118)	EF videoconf (N = 12)	WWE enhanced self-directed toolkit (N = 40)
<ul style="list-style-type: none"> <li>• Self-rated Health</li> <li>• Physical Activity</li> <li>• Sleep</li> <li>• Depression</li> <li>• Loneliness</li> </ul>	<ul style="list-style-type: none"> <li>• Self-rated Health</li> <li>• Physical Activity</li> <li>• Sleep</li> <li>• Self-Efficacy</li> <li>• Fatigue</li> <li>• Depression*</li> </ul>	<ul style="list-style-type: none"> <li>• Fatigue</li> <li>• Pain</li> </ul>	<ul style="list-style-type: none"> <li>• Self-rated Health</li> <li>• Sleep</li> <li>• Hypoglycemia*</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Activity</li> </ul>	<ul style="list-style-type: none"> <li>• Self-rated Health</li> <li>• Physical Activity</li> </ul>



\* For persons with depression or hypoglycemia, only

# **Magnitude of change**

27–50% improved and 20-54% maintained outcomes over time

Moderate to strong effect sizes

- CDSMP: Self-efficacy
- CPSMP: Fatigue, anxiety, pain severity and interference
- DSMP: Health
- EF: Health, tech usability
- WWE: Fatigue, loneliness



# Participant stories of impact

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## Change in health promotion knowledge, attitudes, practices

*“I feel as if this program literally changed the trajectory of my life. Prior to it, I was diagnosed as pre-diabetic and was put on medication which made me very sick. My next option was a very expensive diabetes drug. But, through following this program, I learned about insulin resistance and what I could do to combat my descent into diabetes. I was encouraged and coached in inspiring ways. I am now barely considered even pre-diabetic.”*

- DSMP 66-year-old women living with others and managing ulcerative colitis

*“The program helped me **understand how exercise can improve my mobility** and it encouraged me to remain active.”*

- WWE 63-year-old man living with others and managing arthritis and asthma



# Participant stories of impact

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Social benefits – less alone, camaraderie, comfort, connection

*“She liked the interaction with other people, it's helpful to find out how others are going through. **To know that there's other people out there with a lot of pain and they're struggling with it, made her feel not alone.** Some are worse and some are better. It feels isolating a lot with pain, so that was really nice to experience, seeing others.”*

- CDSMP, 74-year-old woman living alone and managing multiple chronic conditions

*“I did appreciate the opportunity to meet with the group assigned to me and get the **encouragement to get out and walking.**”*

-WWE, 65-year-old women living with others and managing arthritis and mental illness



# Remote EBP impact from provider's perspectives

	Survey data		Interview data
	Leaders	Managers	
Improved health outcomes	93 (76%)	56 (74%)	<ul style="list-style-type: none"> <li>Kept participants safe while also allowing them to access the benefits of these programs</li> <li>The program was still effective and they could see the benefit it had on participants</li> </ul>
Reduced social isolation & loneliness	116 (94%)	66 (88%)	<ul style="list-style-type: none"> <li>Enhance socialization, helps with isolation, which is really needed right now. The bonds formed within the groups are really important</li> <li>Clients appreciated getting checked on, many were feeling isolated during covid</li> </ul>
Improved access to technology	52 (42%)	30 (39%)	<ul style="list-style-type: none"> <li>By participating in the remote EBP, participants got access to new or loaner technology</li> </ul>
Improved comfort with using technology	91 (74%)	52 (69%)	<ul style="list-style-type: none"> <li>Increased tech literacy and comfort of participants which leads them to do other online stuff</li> <li>Clients felt accomplished to have completed a virtual class without help</li> </ul>
Enhanced access to other supports and services	67 (55%)	35 (46%)	<ul style="list-style-type: none"> <li>Able to educate older adults in their program about COVID-19 vaccines</li> <li>Remote improved cross-referrals which is good for holistically addressing health</li> </ul>
Improved access to EBPs	NA <sup>a</sup>	NA	<ul style="list-style-type: none"> <li>Participants can repeat the program because it's easier to access</li> <li>No concerns about driving in bad weather</li> <li>Some participants liked the virtual class and want remote options in the future</li> </ul>



# Remote EBP impact from provider's perspectives

## Benefits for EBP providers

	Survey data		Interview data
	Leaders	Managers	
Improved health outcomes	58 (47%)	27 (35%)	<ul style="list-style-type: none"><li>• NA</li></ul>
Reduced social isolation & loneliness	61 (50%)	39 (52%)	<ul style="list-style-type: none"><li>• Able to keep working and connecting with colleagues and participants</li></ul>
Improved access to technology	34 (27%)	22 (29%)	<ul style="list-style-type: none"><li>• Got access to tech via work or family, friends and neighbors</li><li>• For leaders without access, some stopped delivering</li></ul>



# Reach

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What new populations are being reached?

## Individuals who...

- > Are caregivers
- > Are homebound
- > Face transportation barriers
- > Live in rural areas
- > Have limited English proficiency
- > Prefer remote



# Reach

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Who is *not* reached?

Individuals who...

- > Do not have the required devices
- > Do not have reliable internet
- > Have limited technological literacy
- > Dislike or distrust technology (phones too)





# **Implementation**

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*...we have lost a couple of instructors, so having that remote training option for instructors and not necessarily needing to have a master trainer available to come and do the training or sending people away [to training], that's really helped. –*

**Program Staff [119]**

What has helped remote delivery (facilitators)

- > **Adaptations mainly to format, less to content**
- > **Distance training for workforce capacity building, sustainability, reach**
- > **Tech support for both participants and leaders**
- > **Diverse remote formats**
- > **It has gotten easier over time**



# Implementation

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*[The cost has] gone up. If there was just the one instructor, it would obviously be less, but since there's another...that adds to the cost.  
– Program Staff and Leader [118]*

Barriers and unintended consequences

- > **A few group-based activities are not feasible**
- > **Risks for widening the digital divide**
- > **Can be more resource intensive initially**
- > **Limited opportunity for casual encounters**
- > **Can be harder to engage in and during programs**



# Implications

- Remote EBPs provided access to health promotion, as well as connection to other services and supports
- Many older adults have access to and comfort using technology for remote EBPs (either pre-COVID or built during COVID)
- For older adults with less access or comfort, training and resources can improve accessibility and feasibility of remote EBPs
- Supports can be informal (e.g. family, neighbors) or formal (e.g. EBP leader or organization staff or volunteer)

## INDIVIDUALS

## PROVIDERS

## ORGANIZATIONS

## POLICY, SYSTEM, ENVIRONMENT, CULTURE, SOCIAL

- Leaders found remote EBPs to be acceptable and feasible
- Remote EBPs also offered a way for leaders to continue working and supporting older adults during pandemic
- Resources and training can help improve leader access and comfort, as can having a co-leader to support engagement and tech
- Distance training may be more feasible to integrate into work and life routines
- Embed remote EBP training into public health curricula

- Remote EBP delivery provides an opportunity to reach older adults who are underserved
  - BIPOC; rural; LEP; caregivers; physical, emotional and sensory disabilities; chronic health issues; working; incarcerated
  - Different remote formats may better reach specific priority populations
- Share data and stories to improve remote EBP acceptability among managers
  - Remote delivery as one option in menu of EBPs to support older adult health equity
- Distance training offers an opportunity for expanding EBP workforce to diverse people, providers and organizations

- Funding and guidelines for remote EBP delivery to improve access for persons with lack of access or comfort using tech, with limited income, literacy or education, due to systemic inequities
  - Additional resources include tech access and support, time for engagement, start-up vs ongoing costs
  - Adjust guidelines to reflect smaller classes, wider geographic areas
- Policies to improve tech access
  - e.g., Lifeline Assistance cell phones for people with low income
- Structural changes for improved access to technology
  - e.g., broadband as public utility to improve rural access

# Summary

COVID context created opportunity to address barriers to EBPs and improve equity

Conduct evaluation with, for and in communities to guide future policy and practice

Opportunities for remote EBPs to improve health and access



# Thank you!

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## How to get in touch

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## Learn more

Process evaluation: Steinman L, Chavez Santos E, Chadwick K, Mayotte C, Johnson SS, Kohn M, Kelley J, Denison P, Montes C, Spencer-Brown L, Lorig K. Remote Evidence-Based Health Promotion Programs During COVID: A National Evaluation of Reach and Implementation for Older Adult Health Equity. *Health Promot Pract.* 2023 Jun 6:15248399231175843. doi: 10.1177/15248399231175843.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10251066/>

Outcome evaluation: Steinman L, Chadwick K, Chavez Santos E, Sravanam S, Johnson S, Rensema E, Mayotte C, Denison P, Lorig K. Remote Evidence-Based Health Promotion Programs to Support U.S. Older Adults during COVID-19 and beyond: A Mixed Methods Outcome Evaluation. *JMIR Aging* (preprint 2023 Aug).

<https://preprints.jmir.org/preprint/52069>