Project:

Overcoming Population Differences for **Ageing in Place** in rural Appalachia, Ohio: **community-based codesign** to improve **rehabilitation access**

TOOLKIT TO SUPPORT A COMMUNITY-BASED CODESIGN

Principal Investigator:

Tiago Jesus,

Assistant Professor,

The Ohio State University

College of Medicine, School of Health & Rehabilitation Sciences,

Division of Occupational Therapy

tiago.jesus@osumc.edu

In Partnership with:

Funding Information:

The project described was supported by Award Number UM1TR004548 from the National Center For Advancing Translational Sciences. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Center For Advancing Translational Sciences or the National Institutes of Health

Table of Contents

Interactive Maps Home-Based Rehab, Ohio (county level) 3

Interactive Map 1: Ohio Home-based Rehab ACCESS 4

Interactive Map 2: Ohio Home-based Rehab Therapy DELIVERY 5

Interactive Map 3: Ohio Home-based Rehab NEED 6

Four Personas representing typical needs, disabilities, and access disparities 7

4 personas that still want to live at home 8

Persona profile: Robert, rural stroke survivor 9

Persona profile: Margaret, rural fall risk 10

Persona profile: Carol, rural frail older person 11

Persona profile: Linda, rural dementia caregiver 12

Menu of Evidence-based Program Options 13

A- Evidence-Based Programs 14

I- Program Options Overview 14

II- Impact and Evidence Base 16

III- Implementation Examples & Adaptations (rural) and Cost-Benefit 17

B- Service Delivery, Workforce & Integrated Model Innovations 19

Service Delivery Innovations 19

Workforce Innovations 20

Integrated Model Innovations 22

Appendix: Local Funding/Reimbursement & Regional Supports 23

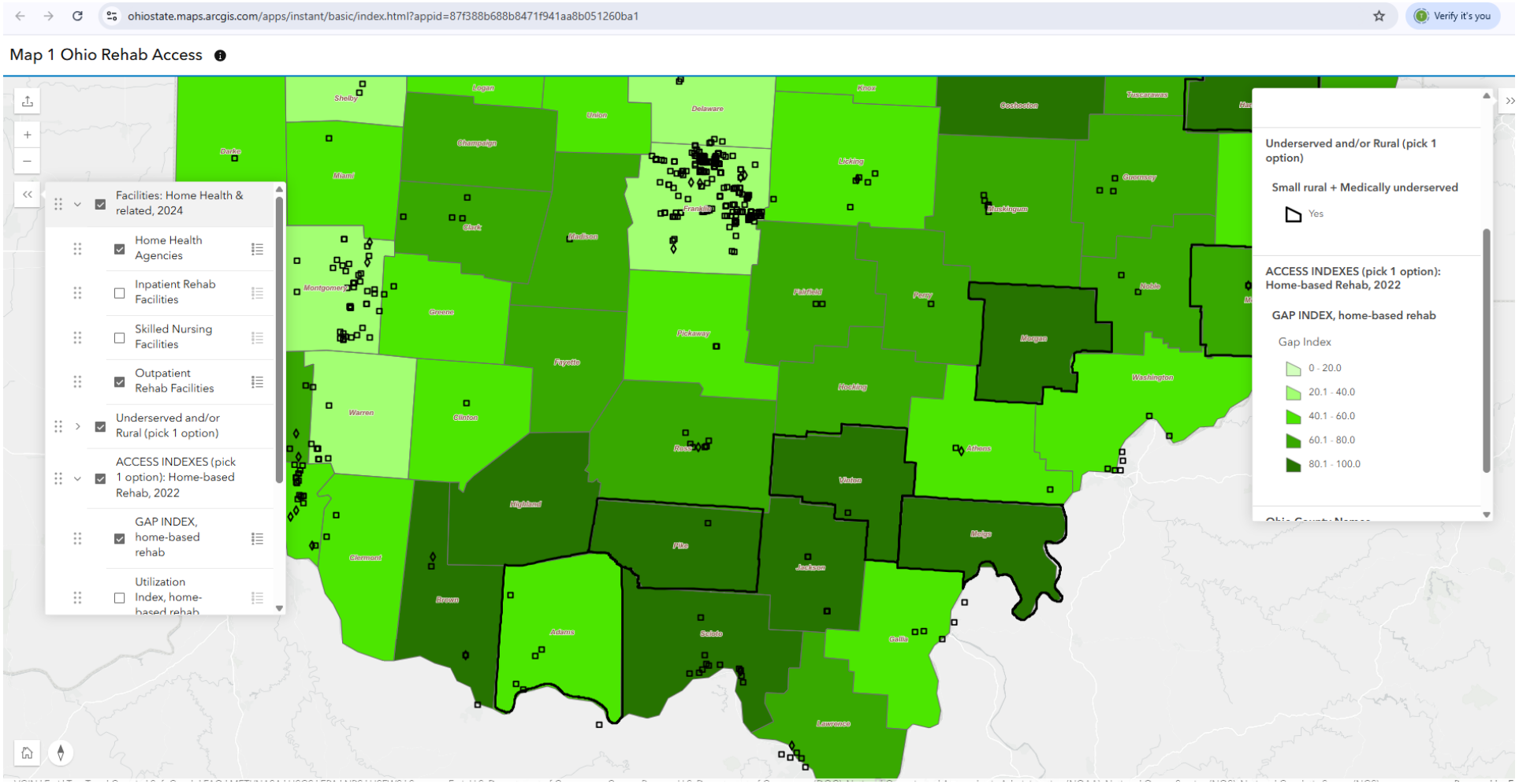
References 25

Interactive Maps Home-Based Rehab, Ohio (county level)

(I) Access, (I) Delivery, and (II) Need

Interactive Map 1*:* Ohio Home-based Rehab ACCESS (overall picture)

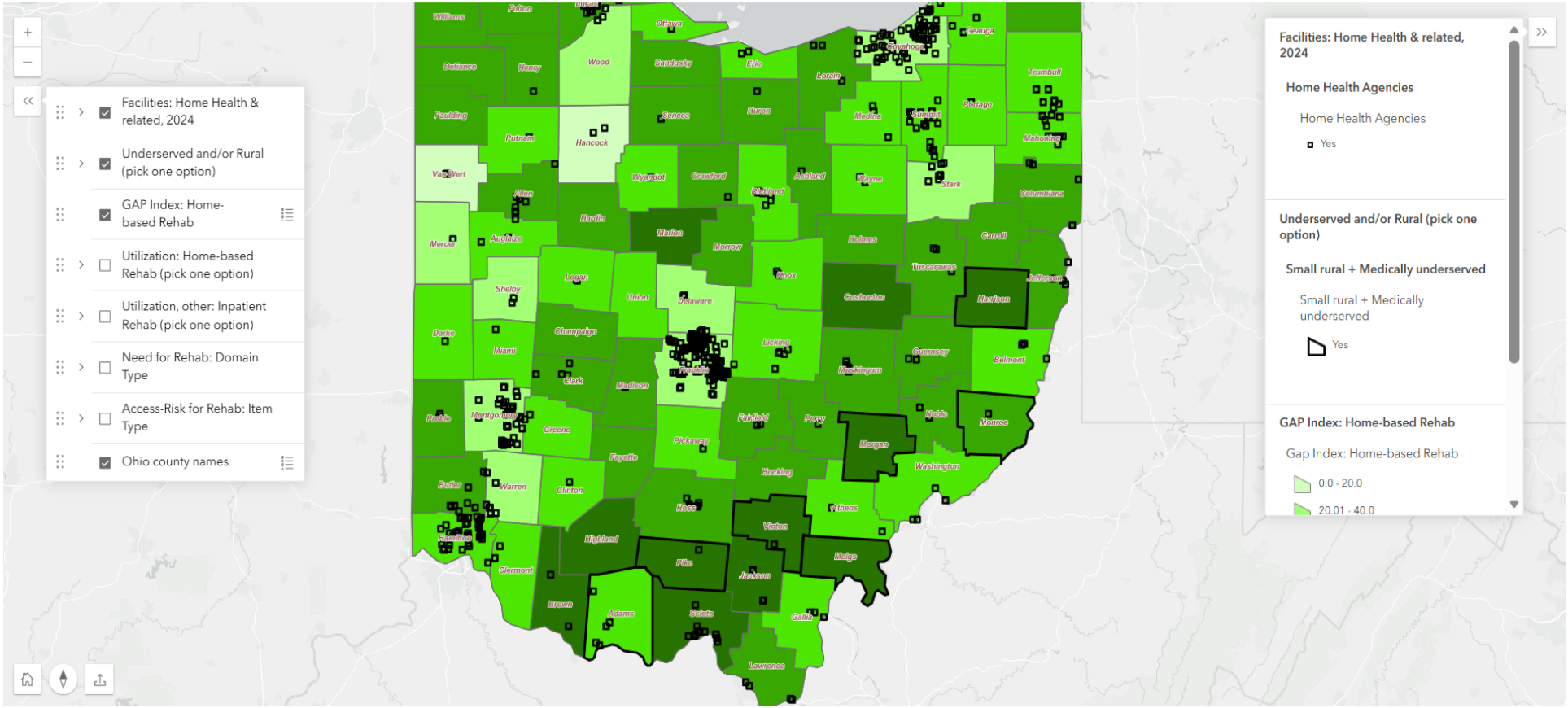
https://ohiostate.maps.arcgis.com/apps/instant/basic/index.html?appid=87f388b688b8471f941aa8b051260ba1



Interactive Map 2: Ohio Home-based Rehab Therapy DELIVERY:

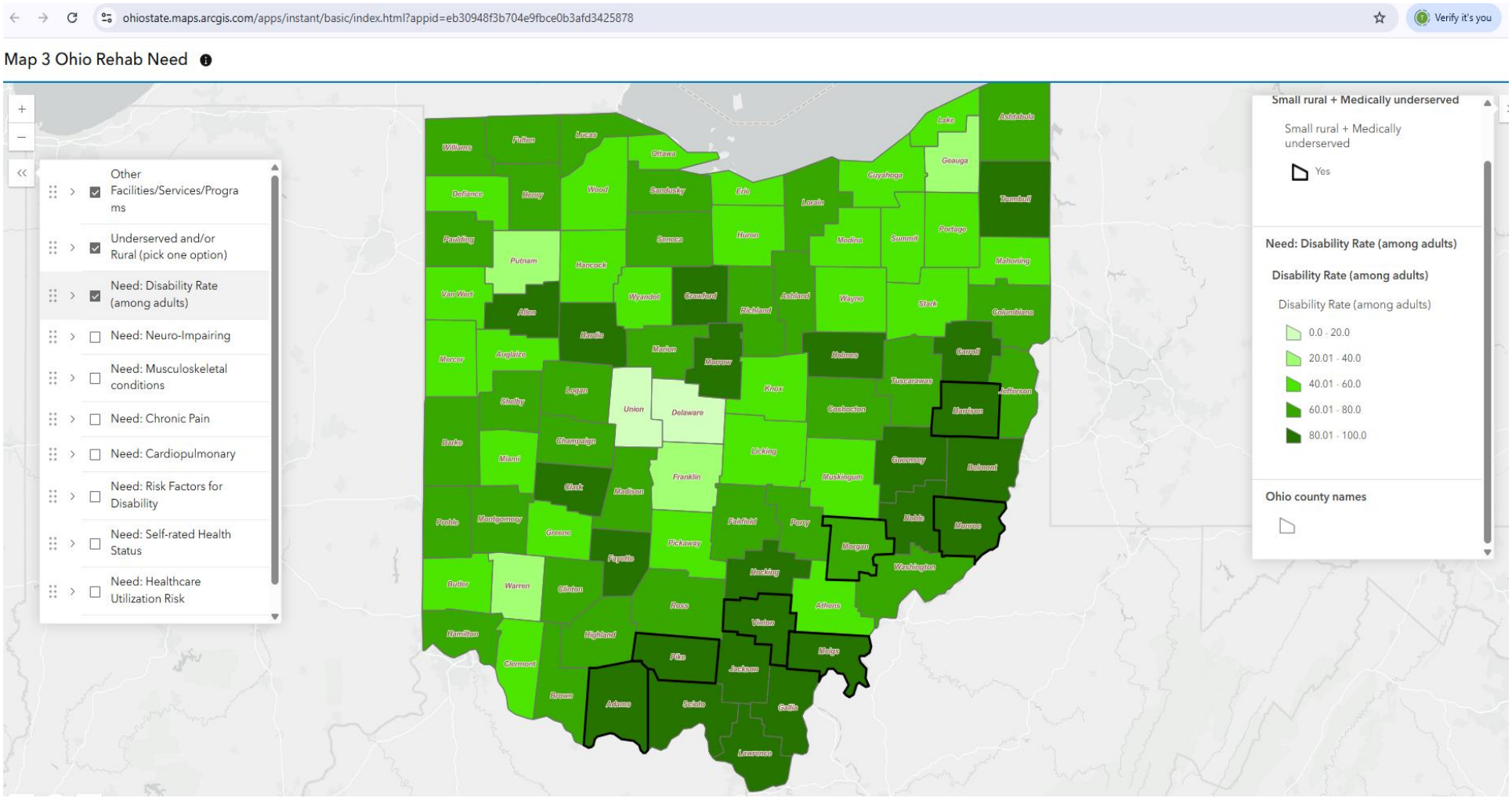
https://ohiostate.maps.arcgis.com/apps/instant/basic/index.html?appid=87ac90b16843458bb0adb01e4cc18774

Map 2 Ohio Rehab Supply and Utilization



Interactive Map 3: Ohio Home-based Rehab NEED:

https://ohiostate.maps.arcgis.com/apps/instant/basic/index.html?appid=eb30948f3b704e9fbce0b3afd3425878

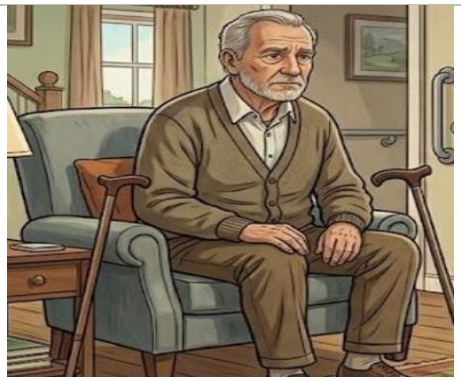
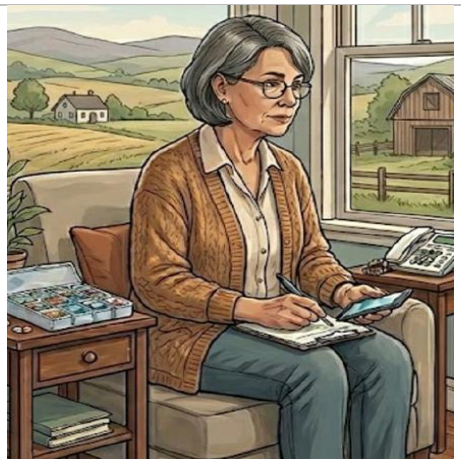


Four Personas

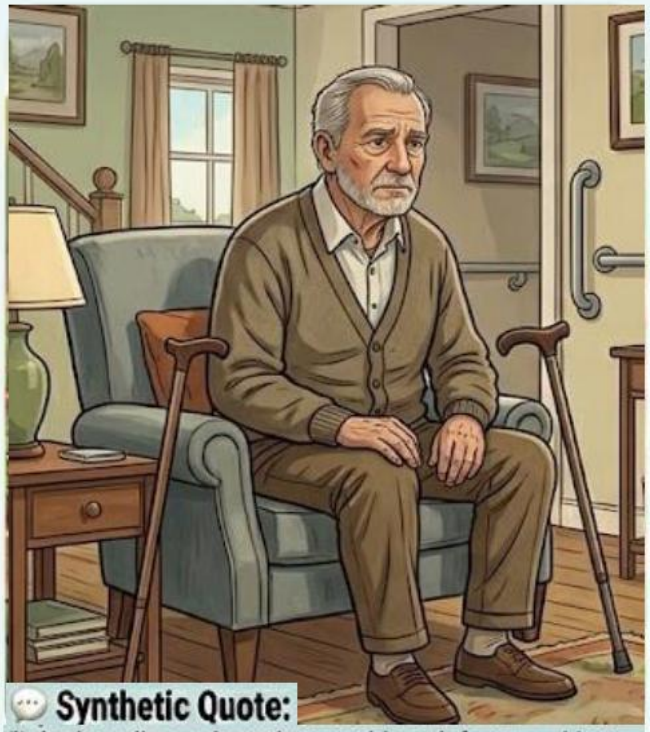
Representing typical needs, disabilities, and access disparities

Integrating Literature Reviews, Datasets & Interviews

4 personas that still want to live at home

Robert, stroke survivor		Robert, 68, stroke survivor (6-mo ago), discharged home after inpatient rehab but with residual disabilities. Had some outpatient therapy with long travels but not home-based; needs 'transitional' support how to move around do things at home; not willing to receive therapy over the phone. Needs transitional rehab
Margaret, Fall risk & Hip Replacement		Margaret, 74, hip replacement (6-mo ago) after a fall and hip facture; also with osteoarthritis in knees and pain; high fear and risk of failing again – leading to inactivity and function decline; believes pain and fall risk are "how aging is"; no nearby family support; relies mainly on the local senior center for support. Needs confidence, activity & fall prevention.
Carol, Frail & Multiple Conditions		Carol, 77, diabetes, partial foot amputation, heart failure, visual impairment; uses wheelchair; needs help with bathing/dressing; lives with spouse; struggles with medication management, transportation; and navigating healthcare; struggles to maintain daily exercise; hesitates to seek help: was raised to avoid being a burden. Very low technology comfort; relies on a landline. Needs ongoing home support + coordination
Linda, Caregiver of person with dementia		Linda, 55, lives near her mother (moderate dementia) and requires assistance with daily activities. Overwhelmed by daily caregiving demands; limited knowledge of managing dementia symptoms. Emotional strain, financial pressure, and lack of guidance leave her isolated; struggles to manage her mother's medications alongside her own health needs. Needs caregiver training + navigation.

PERSONA PROFILE: ROBERT, RURAL STROKE SURVIVOR



Synthetic Quote:

"I don't really see how that would work for me... I just don't think therapy over the phone can help me walk on my own or manage things around the house again"

Health and Functional Profile

- Post-stroke (6 months ago), early rehabilitation completed
- Ongoing functional challenges at home
- Left-side weakness; cognitively intact
- Walks with cane
- Needs help with daily activities (ADLs)
- Difficulty with stairs

Context & Resources

- Lives with spouse
- Income below $30K
- Limited transportation
- No broadband access
- Therapy services effectively exhausted under Medicare Part B
- 40 miles to nearest outpatient clinic
- No local occupational therapy services
- Specialized providers may be unavailable due to workforce, licensing, or location

Narrative

Robert is a 68-year-old stroke survivor living in a rural area. After discharge, he has struggled to attend outpatient therapy due to long travel distances and poor road conditions. Although motivated to to follcw his rehabilitation plan, he has reached the limits of covered therapy under Medicare and is unsure what options remain. Broadband limitations and skepticism about technology make telehealth difficult. He is satisfied with care at the nearest clinic but doubts the effectiveness of remote care. He hopes to return to gardening but but worries he will not regain independence if access barriers persist. He is also reluctant to use community services due to stigma associated with visible disability.

Goals

- Regain strength
- Walk without an assistive device
- Return to gardening
- Maintain independence
- Regain independence in daily activities (bathing, dressing, mobility at home)

Challenges

- Transportation barriers and long travel distances
- Coverage limits and administrative complexity
- Limited rehabilitation workforce (especially OT)
- Broadband limitations restricting telehealth
- Lack of structured care transition and follow-up
- Stigma related to visible disability

Key Insights

Gaps in post-acute care transitions, combined with coverage limits, transportation barriers, and workforce shortages, prevent continued recovery despite strong motivation. Functional gains are not translated into real-world environments and daily activities at home.

Actionable Insight

This profile supports a structured transition-to-home program

- Targeted home visits
- Environmental adaptaticns
- Goal-oriented problem-solving focused on ADLs
- Translation of rehabilitation gains into daily life

Hybrid delivery models (in-person + low-tech follow-up) can improve access and continuity in rural settings.

Technology & Preferences

- Moderate technology comfort (smartphone for basics), apprehensive about telehealth, prefers in-person care
- Broadband limits & skepticism make telehealth difficult.

PERSONA PROFILE: MARGARET, RURAL FALL RISK



Health and Functional Profile

- Hip fracture from a fall 6 months ago; hip replacement
- osteoarthritis in knees
- walks with walker
- pain limits mobility
- High fear and risk of falling

Context & Resources

- Lives alone on a fixed income
- limited transportation
- no broadband access
- Medicare Part B covers limited sessions; not dual eligible; pays out-of-pocket for assistive devices
- Nearest OT provider is 25 miles away; local fall prevention and telehealth-supported options are limited
- Relies primarily on a community senior center for social support

Goals

- Reduce pain; regain confidence walking indoors and outdoors; avoid another fall; maintain independence and social participation; avoid nursing home placement

Narrative

Margaret is 74 and lives alone in a rural area with limited access to rehabilitation services. After her hip replacement, she was discharged home without home- or community-based rehabilitation in place and is unaware that she would benefit from further therapy or fall prevention care. She believes pain and fall risk are "how muth risk are "how aging is" yet struggles with both. With no nearby family support, she relies mainly on the local senior center. Transportation barriers, limited provider availability, and Medicare coverage constraints make consistent care difficult. While open to home-based support, she worries she lacks the necessary equipment.

Technology & Preferences

- Low technology comfort; prefers phone calls over apps
- Limited access to telehealth options suited to her needs and preferences

Challenges

- Low awareness of need for rehabilitation and fall prevention
- Fear of falling leading to reduced activity
- Transportation barriers and limited provider availability
- Medicare co-pays and cost of home modifications
- Discharge practices favoring outpatient over home-based care

Synthetic Quote:

"I just thought the pain and risk of falling were part of getting older... but now I feel like I could fall again just doing things around the house."

Key & Actionable Insights

Low perceived need for rehabilitation, combined with fear of falling and limited access to services, contributes to inactivity and declining function. Financial constraints and lack of community-based options further reduce engagement.

Actionable Insight

This profile supports area-level, tailored fall prevention programs combining strength and balance training with other supports (e.g. home modifications). Delivery through community-based or locally trained providers, with remote supervision, can improve feasibility and engagement in rural areas.

PERSONA PROFILE: CAROL, RURAL FRAIL OLDER PERSON



Health and Functional Profile

- Diabetes (partial foot amputation), heart failure, visual impairment
- Uses wheelchair indoors; needs help with bathing and dressing

Technology & Preferences

- Very low technology comfort; no smartphone; relies on a landline
- Prefers face-to-face care and is uncomfortable with remote or phone-based services
- Prior negative experiences with telephone-based contributed to mistrust of providers and digital health

Narrative

Carol is 77 and lives with her spouse in a rural area. She manages multiple chronic conditions and prioritizes avoiding hospitalization while maintaining independence. However, she struggles with transportation, medication management, and navigating a complex healthcare system. She ike her feeling unsupported. Limited broadband, financial strain, and inaccessible community services increase her isolation. She hesitates to seek help, as she was raised to avoid being a burden.

Context & Resources

- Lives with spouse; income below the poverty line; experiences food insecurity; no broadband access
- Dual eligible for Medicare and Medicaid but faces difficulty navigating coverage.
- Nearest rehabilitation provider is ~50 miles away with limited availability of home-based specialized therapy.
- Community servlees are limited and often not wheelchair accessible.

Challenges

- Complex medication management and care coordlnation
- Difficulty adhering to daily rehabilitation exercises
- Transportation barriers and long travel dlstances
- Limited availability and perceived low quality of home-based care
- Insurance complexity and difficulty navigating services
- Reluctance to ask for help due to desire not to be a burden
- Social isolation and inaccessible community resources

Goals

- Maintain independence in self-care (e.g., bathing, dressing); stay out of the hospital; avoid institutionai care; maintain dignity and autonomy.

Synthetic Quote:

"It's hard keeping up with everything day to day... I know I'm supposed to do the exercises and manage my medications, but without someone checking in, I just don't stay on track—and I don't like asking for help."

Key & Actionable Insights

Multimorbidity, functional limitations, and socioeconomic disadvantage (combined with fragmented, low-quality home care) drive unmet needs, poor adherence, and higher hospital risk. Mistrust, limited support, and difficulty sustaining self-management further reduce engagement.

Actionable Insight

This profile benefits from multi-component home-based programs (e.g., CAPABLE) integrating rehabilitation, environmental modification, and care coordination to improve independence in low-income older adults.



Health and Functional Profile

- Primary caregiver for her mother with moderate dementia who requires assistance with daily activities.
- Works part-time and manages her own chronic health conditions.

Narrative

Linda is 55 and lives near her mother, providing ongoing support with dally care needs. She often has to navigate care independently and has difficuity identifying and accessing dementia-specific resources, including respite services.

Despite having broadband access, she has limited knowledge of managing dementia-related symptoms and feels overwhelmed by daily caregiving demands. Challenges in managing her mother's daily caregiving demasced with a financial pressure, create a significant burden. Linda frequently feels isolated due to a lack of consistent guidance. She finds it difficult to secure time for her own self-care and struggles to manage her mother's medications alongside her own health needs. Her ultimate goal is to keep her mother safe at home while preserving her own well-being.

Context & Resources

- Middle income; broadband access.
- Mother is enrolled in Medicare Advantage with limited coverage for respite care.
- Availability of dementia-specific community services is limited, and caregiver support groups are scarce.

Goals

- Avoid a nursing home placement
- Maintain her mother's quality of life
- Connect with other informal caregivers
- Manage stress and prevent burnout
- Maintain her own health and well
- Preserve their family relationship

Challenges

- Programs that provide coordinated dementia care, caregiver training, and ongoing follow-up are not available or too infrequent
- Limited access to and transportation to dementia-specific services
- Bifficulty navigating available resources and supports
- Emotional strain and risk of caregiver burnout
- Managing medications and daily care tasks
- Limited time for self-care and managing her own health

Technology & Preferences

- Medium technology comfort; uses apps for scheduling and medication reminders.
- Open to using technology but needs structured, reliable, and relevant support rather than fragmented or hard-to-navigate resources.

Synthetic Quote:

"I'm doing everything I can to take care of her, but I don't really know if I'm doing it right—and there's no one checking in or showing me what to do."



Key & Actionable Insights

Caregiver burden, limited dementia care knowledge, and lack of support reduce caregiving capacity and threaten the ability to maintain care at home. Gaps in navigation, follow-up, and structured services intensify strain.

Actionable Insight

This profile highlights the need for structured caregiver support programs (e.g., GUIDE, COPE, TAP, Skills2CareTM) providing training, problem-solving, and support. Flexible hybrid delivery can enhance access while improving caregiver capacity and patient outcomes.

Menu of Evidence-based Program Options

&

Service Delivery, Workforce & Integrated Model Innovations

A- Evidence-Based Programs

Vertical evidence-based programs are home/community-based interventions delivered by health and/or non-health practitioners to improve functional ability, the home environment, and strengthen capacity of older/caregiver populations. They can be delivered as stand-alone interventions or adapted to be integrated into existing services: home-based services, community centers, or primary care services, in addition to adaptable to rural underserved contexts, with partial tele support. These programs can be complementary solutions that can be combined based on local need and capacity.

I- Program Options Overview:

Aligned with our four personas, we present four categories of evidence-based programs: each includes an overview, evidence, and implementation examples, rural adaptations, or cost–benefit.

1- Rehabilitation Transition Program After Stroke

A short-term program supporting the transition from inpatient rehab to home during the high-risk 1–3 months post-stroke. Many patients face environmental, task, and self-management barriers that limit functioning at home following inpatient clinical improvements. The program is Occupational Therapist-led (**OT**), delivered through **~4–6 home visits** plus **flexible phone/telehealth follow-ups**. Core components are home visits and OT-led assessment, environmental modification, and functional training. Follow-ups are typically OT-led, but may be partly delegated to trained staff for reinforcement and monitoring under OT supervision, depending on resources, and are **flexible in mode** (phone; telehealth; occasional in-person), primarily for reinforcing strategies, supporting implementation, and monitoring progress between OT visits.[1-3] It delivers **home modifications, assistive tools, layout changes and functional self-management**, using guided, real-life problem-solving to improve safe task performance, independence, confidence, and long-term daily functioning.

Provider	Role in Supported Transition Program
Occupational Therapist (OT)	Conducts home & task-based evaluations; identifies functional goals aligned with patient priorities; facilitates problem-solving for daily activities; recommends and trains in environmental modifications and adaptive strategies (e.g., assistive tools, layout changes); coordinates care plan and supervises implementation.
Other trained staff (optional)	Reinforces strategies between OT visits; supports implementation of recommendations; assists with follow-ups (home or remote); monitors adherence and emerging barriers under OT guidance.

2- Fall prevention programs (e.g. OTAGO)

Evidence-based fall prevention programs abound, searchable in key websites.[4-6] These are often exercise-based (strength & balance), while some are multi-component (e.g. add environmental adaptations + education). Here, we overview ***OTAGO***, one exercise-based program to prevent falls approved by the *National Council on Aging*[7] and included in the *Rural Information Hub*.[8]

Delivered by a Physical Therapist (**PT**), core OTAGO components include initial assessment, individualized exercise prescription, progression, and periodic reassessment.[9-11] The program is typically taught over **~8 weeks**, followed by a longer self-management phase with **check-ins**. Delivery is **flexible** (1:1, group, or remote), and follow-ups or check-ins may occur **in person or by phone** depending on context. Support from PT assistants or other trained providers is **optional**, reinforcing adherence, monitoring progress, and supporting technique under PT supervision.[9-11]

Provider	*Role in OTAGO*
Physical Therapist - PT (Primary Provider OR Evaluator, Prescriber and/or Remote Supervisor)	Conducts initial assessment and prescribes the individualized program, including strength and balance exercises and walking progression. When accountable for the full delivery, the PT performs a series of four home visits over ~8 weeks to teach, progress, and ensure safety with the 17 exercises. Oversees transition to 4–10-month self-management phase with monthly check-ins.
PT Assistant / Other Trained Provider (supported provider)	Supports adherence and compliance, may deliver follow-up visits and reinforce exercise technique under PT oversight. Can serve as the home-based provider during check-ins or reassessment sessions where appropriate.

3- CAPABLE (Community Aging in Place — Advancing Better Living for Elders):

An interdisciplinary, home-based program, CAPABLE's core components include **OT- and RN-led visits**: the OT on functional goals, home safety, and environmental modifications – may be for fall prevention, while the RN addresses medical needs (e.g., pain, medications, depression). A handyman provides core support for implementing home modifications, within a budget. Visits are **structured but partly flexible** in scheduling **over 4–5 months**. The program is **primarily in-person**, with no key telehealth component. **Training in the** CAPABLE model is **required** for providers, while the specific mix or intensity of visits may vary slightly by context, but all three roles remain essential.

Provider	Role in CAPABLE
Occupational Therapist	Delivers 6 in-home visits focused on mobility, ADLs, and safety strategies specifically to conduct home safety and functional assessments (e.g., TUG, ADL staging) and co-create goals with clients: bathing, cooking, toileting, stairs, etc. The therapist also prescribes assistive devices, modifications, and teach energy-conserving techniques. Train in compensatory strategies for mobility and cognition challenges. Coordinate closely with the nurse and handyman to implement a unified plan
Registered Nurse	4 home visits focused on medical issues, pain, medication, depression
Handyman	Provides up to $1,300 (on average) in home modifications (grab bars, railings, lighting, etc.)

4- Dementia caregiver programs (e.g. OT-led):

Various structured, evidence-based programs (n>45) supporting family caregivers of people with dementia are listed on the *Best Programs for Caregiving* website.[12] Here, we highlight three OT-led examples: Care of Persons with Dementia in their Environments (COPE), Tailored Activity Program (TAP), and Skills2Care®. Brief descriptions and comparison of program characteristics follow:

COPE[13]**: ~6-month** program with up to **13 sessions (~6–8 in-person** plus **~3–5 flexible phone follow-ups**), primarily led by an **OT** (~10 sessions) working with the caregiver–person with dementia dyad to identify caregiver-prioritized issue and deliver tailored strategies on function, behavioral symptoms, and caregiver stress. Support from an **advanced practice nurse (~2 sessions**, typically 1–2 in-person or phone-based) on medical issues of the person with dementia (e.g., pain, medications, sleep, hydration) to help manage symptoms influencing behavior and function.

TAP[14]**: ~4-month** home-based program delivered over ~2–11 **in-person OT sessions (commonly ~8 sessions)**, with possible brief follow-ups depending on implementation, led by an OT working with the caregiver–person with dementia dyad to assess needs and deliver individualized activity prescriptions and caregiver training to manage behavioral symptoms and support function.

Skills2Care®[15]**: ~6 weeks to a few months**, with a **flexible** number of **sessions** (**primarily in-person**, with possible phone follow-ups), led **by an OT** working with the caregiver–person with dementia dyad to deliver tailored strategies for daily care challenges, focusing on environmental modification, task simplification, communication, and caregiver stress/self-management.

Dimension	COPE[13]	TAP[14]	Skills2Care®[15]
Program Recipient(s)	Family/friend caregiver and person with dementia	Family/friend caregiver and person with dementia	Family/friend caregiver and person with dementia (caregiver-focused)
Typical duration	~6 months	~4 months	~6 weeks to a few months (variable)
Typical session count	Up to 13 total sessions	2–11 sessions (often ~8)	Variable; typically a short series, adaptable to need
Session modality	Primarily in-person (home visits) with some telephone follow-ups	In-person (home-based); limited follow-up depending on implementation	Primarily in-person with some telephone follow-ups
Session length	~1 hour	~1 hour	~90 min (in-person) and ~30 min (telephone)
Primary provider(s)	OT (~10 sessions) + Advanced Practice Nurse (~2 sessions)	OT	OT
Primary targets / outcomes	Function, behavioral symptoms, caregiver stress	Behavioral symptoms and function	Daily care challenges (environment, tasks, communication) and caregiver stress
Provider training requirements	Initial training (~24 hours) + refresher sessions	Initial training required	Initial training required
Licensing / fees	No cost to obtain license	License fee required (varies)	Certification ~$1,500 (2-year validity); renewal ~$200
Program tailoring	Tailored to caregiver-identified priorities using structured assessment	Individualized activity prescriptions based on assessment	Tailored strategies (environment, tasks, communication) and flexible session dose

II- Impact and Evidence Base

1- Rehabilitation Transition Program After Stroke

A randomized clinical trial (RCT, n=185) found that participants receiving the program had ↑ in daily activity performance and satisfaction (≈2–3 point gains on the Canadian Occupational Performance Measure; 1-10-scale), along with significant ↓ in home and community environmental barriers.[1] Other analyses showed ↓ **rates of skilled nursing facility admission** (88% vs 79% event-free survival) and **mortality** (100% vs 87%), with favorable but non-significant ↓ **in hospital readmissions** (95% vs 86% event-free survival).[3]

2- Fall prevention programs (e.g. OTAGO):

Across four initial RCTs, the Otago Exercise Program ↓ falls by **35–40%**, with **> benefits** among adults **aged >80** vs those aged 65–79.[16] Then, a systematic review and meta-analysis of 13 RCTs (n=2,402) found significant ↑ in balance, lower-body strength, and mobility.[17] Subgroup analyses indicated that **video-supported delivery** was associated with > improvements in some outcomes (e.g., balance. mobility), sessions >30 minutes were associated with > strength and mobility, and > program durations (13–26 weeks) showed > effects for mobility.[11]

Real-word implementation data from the *Healthy Aging Programs Integrated Database* (2014–2024; >275,000 participants; Otago + similar programs) showed: **52% ↓ in falls**, **56% ↓ in fall-related injuries**, and **18% ↓ in fall-related ER visits**, small ↑ in health & loneliness, and moderate ↓ in fear of falling.[18] Programs provided favorable **return on investment**: mean savings of $3,904 per participant, total savings >$1.B, and returns of $8.36–$38.04 per $1 invested.[18]

Overall, practice guidelines recommend **exercise-based** (including Otago) **and multifactorial interventions** for community-dwelling adults ≥65 at increased fall risk, using evidence from 29 trials

(n=14,475).[19] A systematic review of **OT-led** interventions found **strong evidence for multifactorial approaches** (e.g., home modifications, education, physical activity).[20]

3- CAPABLE (Community Aging in Place — Advancing Better Living for Elders):

Reviews of studies (e.g. six RCTs[21]) with >1100 low-income, community-dwelling, cognitively intact older adults with self-reported difficulty with ≥1 ADLs vs 4000 matched comparators, show benefits.[21] [22] **All studies showed ↑ in ADLs and IADLs**, with small to strong effect sizes.[21] Additional ↑ were observed in depression, fall self-efficacy, pain, and quality of life. [21] [22] Studies implementing the **full dose of CAPABLE** showed > improvement in ADLs and cost savings vs a decreased dose.[21]

Economic evaluations across four studies indicate that CAPABLE generates **net cost savings**, with program costs offset by ↓ in healthcare expenditures.[21]The CAPABLE National Center reports a **return on investment exceeding 6:1**, corresponding to approximately $30,000 in medical cost savings per ~$3,000 invested, based on program evaluations and cost analyses.[23]

4- Dementia caregiver programs (e.g. OT led):

COPE[13]: In the original RCT, COPE showed moderate ↑ **at 4 months** in **patient function** (e.g. IADL independence) **and caregiver well-being**. At 9 months, **caregivers** still reported subjective ↑, including perceived ↑ in disease understanding, caregiving confidence, ability to manage behaviors, patient care ability, quality of life, and ability to keep patients at home.[24]

TAP[14]: reported substantial ↓ (nearly 50%) in health-related events that often contribute to patient institutionalization, as well as reported ↓ of >60% in hospitalizations among caregivers.[25] While it did not improve agitation/aggression of the person with dementia at 3 months, the program **significantly ↑ ALD and IALD** (i.e. reduced functional dependence) and ↑ caregiver well-being and confidence.[14] [25]

Skills2Care® [15]: The initial RCT of 171 families showed that caregivers in the intervention group experienced significantly **fewer declines in patients' IADLs and in ADLs** (small to moderate effect), and ↓ **caregiver upset** among spouses.[26] Women caregivers demonstrated **moderate ↑ in self-efficacy for managing behavioral symptoms**.[26] Overall, the intervention achieves a slow decline in daily functioning and reduce behavioral symptoms in persons with dementia that can trigger institutionalization, while results can be maintained over time.[15] [27]

III- Implementation Examples & Adaptations (rural) and Cost-Benefit

1- Rehabilitation Transition Program After Stroke

This is a recently tested program, without implementation examples beyond its study. The study's process evaluation demonstrated high **completion (>80%) and fidelity**, strong **adherence to home modifications**, and successful **implementation**.[2] The process evaluation data also showed a median cost of approximately **$544 for home modifications and equipment**.[2] Complementary analyses indicate that this approach may also reduce the risk of skilled nursing facility admission and mortality, underscoring its potential downstream impact on health system utilization and costs.[3]

2- Fall prevention programs (e.g. OTAGO):

The OTAGO program, as well as other evidence-based fall prevention approaches have been widely disseminated across US communities, including as supported by Administration for Community

Living.[6] It can be delivered via **group exercise classes** in familiar settings (e.g., faith-based, senior, or community centers, libraries, YMCAs, etc). [6] Video-based PT follow-up can reinforce exercise learning and progress.[6 8] Adapted OTAGO has been implemented **in rural Appalachia**, delivered in home or senior centers following screening: delivered by **trained non-PT personnel** with periodic remote PT oversight and referral assessment.[28] Monthly check-ins ↑ engagement, and participants attending follow-ups showed > ↑ in balance, mobility, and lower-body strength, and ↓ fall risk.[27]

Other, **multifactorial fall prevention programs** combine exercise, medication review, home modification, and vision assessment (e.g., ***Stepping On* program**) and have been implemented in rural areas, **often non-PT/OT-delivered**. For example, North Dakota State University Extension delivers Stepping On through a train-the-trainer model, recruiting **local facilitators** *(e.g., County Family and Community Wellness Agents and partners*) to provide community-based classes, enabling broad reach and sustainability.[29] In Ohio, statewide initiatives led by the Ohio Department of Health and partners support dissemination of *Stepping On* and other evidence-based falls prevention programs, including facilitator training and expansion into underserved rural communities.[30]

3- CAPABLE (Community Aging in Place — Advancing Better Living for Elders):

As of January 2026, CAPABLE has been **implemented** at 33 sites across the US, , including a substantial proportion **in rural areas (n=15),** where programs have been adapted to enhance feasibility and fit local resource constraints.[31 32]

CAPABLE has had growing scalability through Medicaid integration. **Massachusetts** currently offers CAPABLE statewide through its Medicaid program. **Colorado** has conducted pilot implementation among Medicaid beneficiaries. **Connecticut** is in the process of statewide rollout.[31 32] As of January 2026, **no CAPABLE program has been implemented in Ohio**, indicating a potential opportunity for state-level expansion and adaptation to local rural and underserved contexts.[32]

4- Dementia caregiver programs (e.g. OT led):

COPE [13]: A recent RCT comparing telehealth and home visit delivery found that clinical outcomes were not significantly different between the two modes of delivery and that it is **feasible to offer the intervention via telehealth**, reducing travel time while achieving similar benefits.[33] There is an adaptation of the traditional, in-person, instructor-led training to a self-paced, online format, currently under study for non-inferiority within Programs of All-Inclusive Care for the Elderly (**PACE**).[34]

The COPE was also subject to cost-benefit analysis when incorporated into Connecticut's home- and community-based services (HCBS), with per-dyad mean **cost savings** at 12 months of $2,354, although these were not statistically significant.[35] In a modeling study, COPE demonstrated **cost savings** versus usual care from the **societal perspective** (−$5,262), largely driven by reductions in Medicare/Medicaid expenditures (−$4,747) and out-of-pocket nursing home spending (−$1,334).[36]

TAP [14]: This program also had cost savings compared to usual care from the societal perspective (-$1,816) due to reductions in time (value) caregiving (-$1,805) and formal care (-$631).[36]

Skills2Care®: A cost-savings analysis resulted in a **$89 net increase in cost**,[36] yet implementation costs (~$1,000) were among the lowest, alongside TAP.[36] **Certification is require**d to deliver Skills2Care®, including web-based modules, live (in-person or virtual) sessions, and a licensure agreement with program holders. Certification fees include access to materials and documentation tools. Delivery can be adapted (e.g., in-person or virtual), facilitating implementation in rural areas,[15]

B- Service Delivery, Workforce & Integrated Model Innovations

Service Delivery *Innovations:*

1- Integrating rehab into long-term supports: home- & community-based services (HCBS)

In the US, HCBS are Medicaid-funded long-term services and supports delivered at home/community to help individuals with disabilities or chronic conditions live **outside institutional care**. HCBS may include rehabilitation services, e.g., OT and PT, alongside long-term supports: e.g., personal care, case management, transportation, home modifications, community participation services, and home-delivered meals (e.g., *Meals on Wheels*). As Medicaid-funded programs, eligibility, covered services, and implementation vary substantially across states, with additional within-state variation in delivery models. Emerging innovations may help integrate rehabilitation into these platforms; for example, although with pending results, a recent initiative in Ohio has incorporated **dietary interventions and OT into *Meals on Wheels*** to improve nutrition, functional outcomes, and fall prevention.

2- Rehabilitation providers in primary care

Internationally, there is a trend for integration of rehabilitation services within primary care, particularly in **underserved and rural contexts**, supporting more proximal, community-based care.[37 38]

In the US, rehabilitation providers such as PT[39 40] and OT[41-44] can be integrated into primary care, including in Federally Qualified Health Centers (**FQHCs**), addressing functional needs and social determinants of health. OT in primary care addresses health promotion disability & chronic disease management, fall prevention, mental health, and developmental needs through brief consults, co-visits, telehealth, and group interventions.[42-45] Examples include functional screening and care coordination for multimorbidity, tele-OT for home safety and daily functioning in rural settings. The **Mayo Clinic Arizona pilot** demonstrated reduced physician burden, strong return on investment, and improved patient outcomes.[46] **Oregon's** coordinated statewide initiatives, have used stakeholder engagement, needs assessments, pilot testing, and workflow redesign to **embed OT into team-based care**.[47] Implementation challenges include reimbursement alignment, including Medicare Part B requirements, value-based payment models, and FQHC prospective payment systems.[41]

3- Telerehab as a direct service delivery option

Telerehab is a **widely-researched alternative/complement** to in-person care, supported by practice guidelines[48-51] and systematic reviews showing non-inferior effectiveness and similar or lower costs versus in-person care.[52-54] It can enhance care access for **rural populations** where limited provider availability, long travel distances, transportation barriers, and financial constraints restrict service use.[55-58] As a health system also serving rural populations, the **Veterans Health Administration** has been a leader in deploying telerehab, improving care continuity and reducing travel burden for patients. Yet, widespread adoption remains limited, particularly in the private sector, with **persistent implementation barriers**.[59-61] These include **limited access to technology, low digital literacy, and unreliable network connectivity**.[62] Such barriers are **amplified in rural settings**, where broadband access and **digital readiness of its older population** constrain telehealth utilization.[60-65]

4- Community-based and day centers for disability rehabilitation

Internationally, complementary models such as community-based rehabilitation extend access in low-resource settings, including through **task-sharing** with volunteers and non-professional workforces.[66] One example is the ***Life After Stroke Center***, a model implemented for over a decade in Nigeria and now adapted to other low-resource contexts in Africa. This **day-center model** operates **2–3 days per week**, provides transportation, and combines limited professional oversight (1–2 health professionals) with **trained community volunteers** ("Stroke Ambassadors") delivering most group-based, protocol-driven interventions organized by functional domains (e.g., mobility, ADLs).[67] In the US, there is a growing trend for studying and applying in rural areas what works elsewhere.[68]

5- Community-based Exercise and Physical Activity Programs

Evidence from a recent overview of systematic reviews suggests that physical activity programs for older adults are effective at **improving physical activity levels, functional capacity, and fall-related outcomes**; the most effective interventions are multicomponent that combine physical activity with behavioral support, supervision, and individualization, often delivered in **community or home-based settings**.[69] In practice, these approaches are reflected in programs such as **UPBEAT in Athens County, Ohio**, which provides community-based physical activity, education, and social engagement for older adults;[70] however, its reach into more rural nearby counties such as Meigs, Ohio remains limited, highlighting persistent geographic and access barriers. Also, often these program types do not include rehabilitation therapists in the design or delivery.

Workforce Innovations:

1- Community-based Therapist Model

Internationally, both in high and low-resource contexts, there is a growing use of a **community-based therapist model**, with therapist employed and operating **also outside the health sector**, adopting a population-wide (e.g., municipality), public health, heal promotion, social, and community approach, especially in underserviced rural areas. Examples include community service rehabilitation therapists in **South Africa**,[71] community-working occupational therapists in **Norway**,[72 73] or occupational therapists working within underserved communities in **Brazil.**[74] In the **Netherlands** and the **UK**, there is solid evidence for the implementation and effectiveness of a ***Community Occupational Therapy in Dementia***, delivered by OTs within broader health and social care systems.[75] In the US, similar roles are emerging, with OTs increasingly working in population health and community settings, including aging and disability networks and nonprofit organizations; they contribute to **health promotion, aging-in-place initiatives, and community program development** [76 77]

2- Project ECHO: Provider-to-provider tele-mentoring:

Project ECHO (*Extension for Community Healthcare Outcomes*) is a **tele-mentoring** model designed to expand access to specialized knowledge in **rural areas** by strengthening local providers' capacity: ***moving knowledge, not people***. Rather than care delivering, the model links multidisciplinary specialist teams (***hub***) with community-based providers (***spokes***) through regular virtual sessions that combine brief didactic training with case-based discussions. The approach enables clinicians to present real cases, receive expert guidance, and learn from peers, creating a knowledge-sharing loop that supports evidence-based practices. Originally developed in the US, the ECHO models have been used globally especially in rural areas. Evidence shows improvements in provider knowledge, confidence, and practice patterns, as well as improved patient outcomes across conditions.[78 79]

For rural rehabilitation, ECHO can address workforce shortages and limited specialty expertise. Unlike the increasing sub-specialization seen in hubs, rural therapists often function as **generalists** managing a wide range of conditions, requiring broad clinical competencies and context-specific skills (e.g., cultural humility).[58 80] In Ireland, ECHO was used to enhance palliative care by **primary care PTs and OTs**.[81] A Pediatric Clinical Competency Project ECHO has been enhancing the knowledge of OTs in lower income countries.[82] However, less is known about US applications.

3- Training and recruiting rural therapists

Multiple factors affect recruitment, retention, and development of the rural rehab workforce, including geographic isolation, cultural integration challenges, and limited preparation for rural practice.[40 58] Therapy assistants (e.g., OTAs) are more common in rural services but have been disproportionately affected by Medicare payment cuts, while college enrollment has been declining.[83-85]

Strategies to address these challenges include expanding **rural training pipelines** (education, recruitment, clinical placements), strengthening telehealth capacity, offering **financial incentives** (e.g., loan repayment, better pay), and supporting ongoing **professional development and mentorship** tailored to rural contexts.[40 86] Federally funded, state-run ***Rural Health Transformation Programs*** also emphasize increasing training and recruitment of specialized health professionals.[87]

4- Task-sharing to community-based providers

Community health workers (CHWs) are increasingly recognized as a critical workforce for last-mile care delivery in underserved rural communities and for supporting task-sharing in rehabilitation. Evidence shows they improve access, engagement, and outcomes by **bridging gaps between health systems and communities**[88] In the US, CHWs serve as trusted community members providing health education, care coordination, and linkage to services. In rural Ohio, they also function as system connectors, supporting navigation and continuity of care**.**[89]

Emerging evidence from low-resource settings shows that CHWs can support a **rehabilitation task-sharing** when trained and supervised by rehabilitation professionals, delivering low-intensity, community-based functions.[90] These services are delivered through **home- and community-based models**, increasing access where rehabilitation professionals are scarce.[90] Their effectiveness depends on **adequate training, supervision, and integration with formal health systems**.[89]

5- Combining service delivery with student-led developments

Models that integrate service delivery with workforce development offer a **dual strategy** to address rural rehab gaps by simultaneously strengthening **service delivery and workforce training**. These approaches include **student-led clinics and structured rural placements**, where students deliver supervised services in community settings while developing competencies for rural practice.[91]

Applied in contexts such as fall prevention programs for community-dwelling older adults, these models have been implemented through both in-person and telehealth group formats (e.g., rural Australia[92 93]), and in the US through **student-led facilitation roles** within **evidence-based interventions under supervision.**[94] Across settings, these approaches demonstrate feasibility, improved service access, and enhanced trainee skill development and community integration.[91-94]

Integration of **telehealth further extends reach** and helps address geographic barriers.[93] Effective implementation depends on **sustained academic–community partnerships**, structured supervision and training, and alignment with existing services and evidence-based programs.[91-94]

Integrated Model *Innovations*

1- Fully Integrated, Capitated Care Models (e.g., PACE)

The Program of All-Inclusive Care for the Elderly (**PACE**) is a **fully integrated care model** delivering coordinated medical, long-term, and social services through interdisciplinary teams for adults aged >55 who are eligible for **Medicare and Medicaid**, many with complex medical, functional, and cognitive needs, and who **meet criteria for nursing home–level care** (e.g., requiring assistance with activities of daily living and medication management)[95] Services are provided in community-based settings and include adult day care, primary and specialty care, home care, transportation, rehabilitation therapy supports and social supports, enabling participants to remain in the community.[95 96] PACE is financed through **capitated Medicare–Medicaid payments**, in which provider organizations receive a fixed per-member-per-month rate and assume full financial risk .

In Ohio, PACE programs in 2026 are concentrated in rural and suburban areas around Cincinnati, Columbus, Cleveland, and Toledo. Although PACE operates in many states and includes some rural programs, **access in rural communities remains limited and uneven**.[95-98] Rural PACE organizations tend to serve fewer enrollees and operate across larger service areas, contributing to logistical and financial challenges.[96 98] Key barriers include low participant density, transportation and geographic demands associated with larger service areas, workforce capacity constraints, and high start-up and operating costs, intensified under the capitated, risk-bearing financing structure that requires sufficient and stable enrollment within defined service areas to maintain financial viability.[95-98]

Policy and implementation strategies to support rural PACE expansion include targeted financial and start-up support, telehealth flexibility, workforce development incentives, and partnerships with rural providers to extend service capacity.[97]

2- Dementia-Focused Integrated Care Models (e.g., GUIDE)

The Guiding an Improved Dementia Experience (**GUIDE**) Model is a Medicare innovation designed to deliver coordinated, person-centered care for individuals living with dementia and their caregivers through care management, caregiver training, and **integration of medical and long-term services**. The model targets Medicare beneficiaries with complex medical, functional, and cognitive needs and emphasizes care coordination and access to supportive services (e.g., respite, behavioral health, and care navigation), delivered through **interdisciplinary teams and partnerships with community-based organizations.[99]** Unlike capitated models such as PACE, GUIDE uses a **hybrid payment structure** combining care management payments, fee-for-service components, and performance-based adjustments, without requiring full financial risk. Implementation occurs through participating provider organizations, including health systems and multi-state or telehealth-enabled care networks.

In Ohio, GUIDE participation is concentrated in **urban regions** (e.g., Cincinnati, Columbus, Toledo, and Northeast Ohio).[99] Although GUIDE offers a more flexible and distributed model than site-based approaches like PACE, similar to other integrated models, rural implementation may face challenges related to low **population density, workforce constraints, and limited service availability**. The GUIDE Model is expected to operate for 8 years, from July 2024 through July 2032.

Appendix: Local Funding/Reimbursement Mechanisms

Funding & Reimbursement Mechanisms (Ohio – Meigs & Vinton Context)

Mechanism Name	Mechanism Description	Target Population	Key Notes / 2026 Updates (Including Local Availability)
Next Generation MyCare (Integrated Medicare + Medicaid)	Fully integrated dual-eligible managed care model aligning Medicare and Medicaid benefits	Dual-eligible adults (21+)	Rolling out statewide in 2026; available in Vinton County (mid-2026) and Meigs County (late 2026)
PASSPORT Waiver (Medicaid HCBS)	Medicaid HCBS waiver providing in-home services (e.g., personal care, respite, meals, home modifications) as an alternative to nursing facility care	Adults 60+ meeting NF level of care	Statewide program administered via AAAs; available in Meigs & Vinton, though service capacity varies locally
Ohio Home Care Waiver (OHCW)	Medicaid HCBS waiver providing in-home services for individuals with disabilities as an alternative to nursing facility care	Adults <60 with disabilities (including early-onset dementia)	Statewide waiver program; available in all counties including Meigs & Vinton
Assisted Living Waiver	Medicaid waiver covering personal care and support services in licensed assisted living settings	Adults 21+ needing NF level of care	Statewide eligibility, but limited by facility availability; access in Meigs & Vinton is constrained
HOME Choice (Money Follows the Person)	Transition program supporting movement from institutional care to home/community settings with services and supports	Medicaid-eligible individuals transitioning from long-term care facilities	Statewide program; access depends on referral pathways and transition capacity
Medicare (Fee-for-Service, Part A/B)	Traditional federal insurance covering acute and post-acute medical and rehabilitation services	Adults 65+ or disabled	Universally available, including Meigs & Vinton
Medicare Advantage Plans	Private managed-care alternatives to Medicare that may include supplemental benefits (e.g., home supports, caregiver supports)	Medicare beneficiaries	Available statewide, but plan options are typically more limited in rural counties

Federally Qualified Health Centers (FQHCs)	Federally funded safety-net providers supported through Section 330 grants and Medicaid Prospective Payment System (PPS) reimbursement	Low-income and underserved populations, including older adults	Are required to use income-based sliding fee scales for uninsured patients; financially structured to expand access regardless of ability to pay.
Rural Health Clinics (RHCs)	Federally designated rural providers reimbursed through cost-based payment systems under Medicare and Medicaid	Rural populations, including Medicare and Medicaid beneficiaries	Receive cost-based reimbursement (Medicare and Medicaid) but do not receive federal grants and are not required to offer sliding fee scales; designed to sustain provider presence in low-volume rural markets
Patient-Centered Medical Homes (PCMHs)	Care delivery model supported through enhanced reimbursement for care coordination (e.g., care management payments, quality incentives)	Broad population, including high-need older adults	Funding through payer-based care coordination payments and value-based incentives; supports longitudinal management of complex conditions (e.g., dementia); implementation varies across rural providers
County Health Services Levies	Locally funded tax levies supporting public health and community-based services	County residents, including older adults and caregivers	Available in select counties such as Meigs; supports services like public health nursing and community-based care;
Older Americans Act (OAA)	Federal funding supporting community-based aging services through Area Agencies on Aging (AAA)	Adults 60+	Delivered locally via AAA network (Buckeye Hills Regional Council serves Meigs; AAA7 serves Vinton)
State / Local Grants (Healthy Aging, etc.)	Public funding streams supporting community health and aging-related programs, typically short-term	Varies	Available but variable; often administered at county or AAA level in SE Ohio
ACL / Federal Aging Grants	Federal grants supporting innovation, caregiver programs, and evidence-based aging services	Varies	Statewide eligibility; local availability depends on awarded projects
Philanthropy / Foundations / Federal or State Research Grants	Private and public funding supporting pilot programs, innovation, and program development	Varies	Available but uneven; more limited in rural counties such as Meigs & Vinton

References

1. Bollinger RM, Krauss MJ, Somerville EK, et al. Rehabilitation Transition Program to Improve Community Participation Among Stroke Survivors: A Randomized Clinical Trial. *JAMA Netw Open* 2024;7(10):e2437758. doi: 10.1001/jamanetworkopen.2024.37758 [published Online First: 20241001]
2. Bollinger RM, Krauss MJ, Holden BM, et al. Process Evaluation of a Randomized Controlled Trial of an Enhanced Rehabilitation Transition Program for Stroke Survivors. *Arch Phys Med Rehabil* 2025 doi: 10.1016/j.apmr.2025.10.016 [published Online First: 20251106]
3. Krauss MJ, Holden BM, Somerville E, et al. Community Participation Transition After Stroke (COMPASS) Randomized Controlled Trial: Effect on Adverse Health Events. *Arch Phys Med Rehabil* 2024;105(9):1623-31. doi: 10.1016/j.apmr.2024.05.015 [published Online First: 20240519]
4. National Council on Aging. Evidence-Based Programs 2026 [Available from: https://www.ncoa.org/evidence-based-programs/.
5. Rural Information Hub. Fall Prevention Models to Prevent Unintentional Injury 2026 [Available from: https://www.ruralhealthinfo.org/toolkits/unintentional-injury/2/falls.
6. Admnistration for Community Living. Evidence-Based Falls Prevention Programs 2026 [Available from: https://acl.gov/programs/falls-prevention/evidence-based-falls-prevention-programs.
7. National Council on Aging. Evidence-Based Program: Otago Exercise Program 2023 [Available from: https://www.ncoa.org/article/evidence-based-program-otago-exercise-program/.
8. Rural Information Hub. Exercise-Based Fall Prevention Programs 2025 [Available from: https://www.ruralhealthinfo.org/toolkits/unintentional-injury/2/falls/exercise-based.
9. Campbell AJ, & Robertson, M. C. Otago Exercise Programme to prevent falls in older adults: A home-based, individually tailored strength and balance retraining programme. : Accident Compensation Corporation, 2003.
10. Center for Aging and Health. Otago Exercise Program: 2023 Guidance Statement. : University of North Carolina at Chapel Hill, 2023.
11. Albornos-Muñoz L, Blanco-Blanco J, Cidoncha-Moreno M, et al. Efficacy of the Otago-Exercise-Programme to reduce falls in community-dwelling adults aged 65-80 when delivered as group or individual training: Non-inferiority-clinical-trial. *BMC Nurs* 2024;23(1):705. doi: 10.1186/s12912-024-02310-3 [published Online First: 20241001]
12. Best Programs for Caregiving. Find Evidence-Based Programs

2026 [Available from: https://bpc.caregiver.org/pro/index.html#searchPrograms.
13. Best Programs for Caregiving. Comprehensive Program Profile: Care of Persons with Dementia in their Environments (COPE) 2022 [Available from: https://bpc.caregiver.org/pro/index.html#programDetails/cope.
14. Best Programs for Caregiving. Comprehensive Program Profile: New Ways for Better Days: Tailoring Activities for Persons with Dementia and Caregivers (TAP) 2022 [Available from: https://bpc.caregiver.org/pro/index.html#programDetails/tap.
15. Best Progams for Caregiving. Comprehensive Program Profile: Skills2Care® 2022 [Available from: https://bpc.caregiver.org/pro/index.html#programDetails/skills2care.
16. Robertson MC, Campbell AJ, Gardner MM, et al. Preventing injuries in older people by preventing falls: a meta-analysis of individual-level data. *J Am Geriatr Soc* 2002;50(5):905-11. doi: 10.1046/j.1532-5415.2002.50218.x
17. Wu S, Guo Y, Cao Z, et al. Effects of Otago exercise program on physical function in older adults: A systematic review and meta-analysis of randomized controlled trials. *Arch Gerontol Geriatr* 2024;124:105470. doi: 10.1016/j.archger.2024.105470 [published Online First: 20240503]
18. Ezeonu B. Evidence-Based Programs ROI Assessment Report Falls Prevention Programs National Council on Aging 2025.
19. Nicholson WK, Silverstein M, Wong JB, et al. Interventions to Prevent Falls in Community-Dwelling Older Adults: US Preventive Services Task Force Recommendation Statement. *Jama* 2024;332(1):51-57. doi: 10.1001/jama.2024.8481
20. Elliott S, Leland NE. Occupational Therapy Fall Prevention Interventions for Community-Dwelling Older Adults: A Systematic Review. *Am J Occup Ther* 2018;72(4):7204190040p1-40p11. doi: 10.5014/ajot.2018.030494
21. Szanton SL, Leff B, Li Q, et al. CAPABLE program improves disability in multiple randomized trials. *J Am Geriatr Soc* 2021;69(12):3631-40. doi: 10.1111/jgs.17383 [published Online First: 20210727]
22. Rahmati M, Keshvari M, Koyanagi A, et al. The effectiveness of community ageing in place, advancing better living for elders as a biobehavioural environmental approach for disability among low-income older adults: a systematic review and meta-analysis. *Age Ageing* 2023;52(4) doi: 10.1093/ageing/afad053
23. CAPABLE National Center. CAPABLE Improves Health Outcomes at Lower Costs 2026 [Available from: https://capablenationalcenter.org/.
24. Gitlin LN, Winter L, Dennis MP, et al. A biobehavioral home-based intervention and the well-being of patients with dementia and their caregivers: the COPE randomized trial. *Jama* 2010;304(9):983-91. doi: 10.1001/jama.2010.1253
25. Gitlin LN, Marx K, Piersol CV, et al. Effects of the tailored activity program (TAP) on dementia-related symptoms, health events and caregiver wellbeing: a randomized controlled trial. *BMC Geriatr* 2021;21(1):581. doi: 10.1186/s12877-021-02511-4 [published Online First: 20211020]
26. Gitlin LN, Corcoran M, Winter L, et al. A randomized, controlled trial of a home environmental intervention: effect on efficacy and upset in caregivers and on daily function of persons with dementia. *Gerontologist* 2001;41(1):4-14. doi: 10.1093/geront/41.1.4

27. Gitlin LN, Hauck WW, Dennis MP, et al. Maintenance of effects of the home environmental skill-building program for family caregivers and individuals with Alzheimer's disease and related disorders. *J Gerontol A Biol Sci Med Sci* 2005;60(3):368-74. doi: 10.1093/gerona/60.3.368
28. Scronce G, Zhang W, Smith ML, et al. Effectiveness of a Novel Implementation of the Otago Exercise Program in Rural Appalachia. *J Geriatr Phys Ther* 2021;44(4):198-209. doi: 10.1519/jpt.0000000000000283
29. Rural Health Information Hub. North Dakota State University Extension – Stepping On Program. 2026 [Available from: https://www.ruralhealthinfo.org/toolkits/unintentional-injury/3/ndsu-extension.
30. Ohio Department of Health. Stepping On Facilitator Training – Virtual

2026.]
31. CAPABLE. CAPABLE Locations 2026 [Available from: https://capablenationalcenter.org/capable-locations-across-united-states-and-outside-of-the-us/.
32. Rural Information Hub. CAPABLE (Community Aging in Place—Advancing Better Living for Elders) 2025 [Available from: https://www.ruralhealthinfo.org/project-examples/1064.
33. Laver K, Liu E, Clemson L, et al. Does Telehealth Delivery of a Dyadic Dementia Care Program Provide a Noninferior Alternative to Face-To-Face Delivery of the Same Program? A Randomized, Controlled Trial. *Am J Geriatr Psychiatry* 2020;28(6):673-82. doi: 10.1016/j.jagp.2020.02.009 [published Online First: 20200302]
34. Hodgson NA, McPhillips MV, Hirschman KB, et al. Training to Move an Evidence-based Dementia Caregiver Support Program into Practice: A pragmatic, randomized, non-inferiority trial protocol. *Contemporary Clinical Trials Communications* 2025;45:101478. doi: https://doi.org/10.1016/j.conctc.2025.101478
35. Pizzi LT, Jutkowitz E, Prioli KM, et al. Cost-Benefit Analysis of the COPE Program for Persons Living With Dementia: Toward a Payment Model. *Innov Aging* 2022;6(1):igab042. doi: 10.1093/geroni/igab042 [published Online First: 20211016]
36. Jutkowitz E, Pizzi LT, Shewmaker P, et al. The cost of non-drug interventions that improve function and reduce dementia-related behaviors. *BMC Geriatr* 2025;26(1):23. doi: 10.1186/s12877-025-06532-1 [published Online First: 20251204]
37. Seijas V, Maritz R, Mishra S, et al. Rehabilitation in primary care for an ageing population: a secondary analysis from a scoping review of rehabilitation delivery models. *BMC Health Serv Res* 2024;24(1):123. doi: 10.1186/s12913-023-10387-w [published Online First: 20240123]
38. Seijas V, Maritz R, Fernandes P, et al. Rehabilitation delivery models to foster healthy ageing-a scoping review. *Front Rehabil Sci* 2024;5:1307536. doi: 10.3389/fresc.2024.1307536 [published Online First: 20240405]
39. O'Bright K, Peterson S. Physical Therapists in Primary Care in the United States: An Overview of Current Practice Models and Implementation Strategies. *Phys Ther* 2024;104(12) doi: 10.1093/ptj/pzae123
40. Felter CE, Zalewski K, Jermann R, et al. Rural Health: The Dirt Road Less Traveled. *Phys Ther* 2022;102(11) doi: 10.1093/ptj/pzac112
41. Murphy AD, Griffith VM, Mroz TM, et al. Primary Care for Underserved Populations: Navigating Policy to Incorporate Occupational Therapy Into Federally Qualified Health Centers. *Am J Occup Ther* 2017;71(2):7102090010p1-10p5. doi: 10.5014/ajot.2017.712001
42. Donnelly C, Leclair L, Hand C, et al. Occupational therapy services in primary care: a scoping review. *Prim Health Care Res Dev* 2023;24:e7. doi: 10.1017/s1463423622000123 [published Online First: 20230109]
43. Coomber C, Smyth G, Taylor E. The value of the occupational therapy workforce in primary care: A rapid review. *Br J Occup Ther* 2025;88(12):735-45. doi: 10.1177/03080226251329811 [published Online First: 20250805]
44. Kafel T, Šuc L, Skela-Savič B, et al. Effectiveness of Occupational Therapy Interventions in Health Promotion and Primary Prevention for Adults: A Systematic Review. *Am J Occup Ther* 2026;80(1) doi: 10.5014/ajot.2025.051301
45. Bolt M, Ikking T, Baaijen R, et al. Occupational therapy and primary care. *Primary Health Care Research & Development* 2019;20:e27. doi: 10.1017/S1463423618000452 [published Online First: 2019/03/20]
46. Dahl-Popolizio S, Muir S, Rogers O, et al. How occupational therapy can contribute to the primary care team and reduce physician burden. *Family Practice Management* 2023;30(3):23–29.
47. Smith K, Day M, Muir S, et al. Developing Tailored Program Proposals for Occupational Therapy in Primary Care. *The Open Journal of Occupational Therapy* 2020;8(1):1-13. doi: 10.15453/2168-6408.1630
48. Feigin VL, Owolabi MO. Pragmatic solutions to reduce the global burden of stroke: a World Stroke Organization-Lancet Neurology Commission. *Lancet Neurol* 2023 doi: 10.1016/s1474-4422(23)00277-6 [published Online First: 20231009]
49. Hildebrand MW, Geller D, Proffitt R. Occupational Therapy Practice Guidelines for Adults With Stroke. *Am J Occup Ther* 2023;77(5) doi: 10.5014/ajot.2023.077501
50. Salbach NM, Mountain A, Lindsay MP, et al. Canadian Stroke Best Practice Recommendations: Virtual Stroke Rehabilitation Interim Consensus Statement 2022. *Am J Phys Med Rehabil* 2022;101(11):1076-82. doi: 10.1097/phm.0000000000002062 [published Online First: 2022/06/30]
51. Winstein CJ, Stein J, Arena R, et al. Guidelines for Adult Stroke Rehabilitation and Recovery: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke* 2016;47(6):e98-e169. doi: 10.1161/str.0000000000000098 [published Online First: 2016/05/06]
52. Tchero H, Tabue Teguo M, Lannuzel A, et al. Telerehabilitation for Stroke Survivors: Systematic Review and Meta-Analysis. *Journal of medical Internet research* 2018;20(10):e10867. doi: 10.2196/10867 [published Online First: 2018/10/29]
53. Laver KE, Adey-Wakeling Z, Crotty M, et al. Telerehabilitation services for stroke. *Cochrane Database Syst Rev* 2020;1(1):Cd010255. doi: 10.1002/14651858.CD010255.pub3 [published Online First: 2020/02/01]
54. Hao J, Pu Y, Chen Z, et al. Effects of virtual reality-based telerehabilitation for stroke patients: A systematic review and meta-analysis of randomized controlled trials. *J Stroke Cerebrovasc Dis* 2023;32(3):106960. doi: 10.1016/j.jstrokecerebrovasdis.2022.106960 [published Online First: 2023/01/01]

55. Centers for Medicare & Medicaid Services. The CMS Framework for Advancing Health Care in Rural, Tribal, and Geographically Isolated Communities. 2022
56. Harrington RA, Califf RM, Balamurugan A, et al. Call to Action: Rural Health: A Presidential Advisory From the American Heart Association and American Stroke Association. *Circulation* 2020;141(10):e615-e44. doi: 10.1161/cir.0000000000000753 [published Online First: 2020/02/23]
57. Wozny J, Parker D, Sonawane K, et al. Surveying Stroke Rehabilitation in Texas: Capturing Geographic Disparities in Outpatient Clinic Availability. *Archives of physical medicine and rehabilitation* 2021;102(10):e29-e30. doi: https://doi.org/10.1016/j.apmr.2021.07.544
58. Ayres SN, Monteiro PC, Doyle NW, et al. Rural rehabilitation disparities and strengthening strategies: Umbrella review. *Work* 2026:10519815261435564. doi: 10.1177/10519815261435564 [published Online First: 20260330]
59. Cary MP, Jr., Spencer M, Carroll A, et al. Benefits and Challenges of Delivering Tele-rehabilitation Services to Rural Veterans. *Home Healthc Now* 2016;34(8):440-6. doi: 10.1097/nhh.0000000000000441
60. Hale-Gallardo JL, Kreider CM, Jia H, et al. Telerehabilitation for Rural Veterans: A Qualitative Assessment of Barriers and Facilitators to Implementation. *J Multidiscip Healthc* 2020;13:559-70. doi: 10.2147/jmdh.S247267 [published Online First: 20200701]
61. Gately ME, Quach ED, Shirk SD, et al. Understanding Variation in Adoption of Video Telehealth and Implications for Health Care Systems. *Med Res Arch* 2022;10(5) doi: 10.18103/mra.v10i5.2751 [published Online First: 2022/11/22]
62. Rettinger L, Kuhn S. Barriers to Video Call-Based Telehealth in Allied Health Professions and Nursing: Scoping Review and Mapping Process. *J Med Internet Res* 2023;25:e46715. doi: 10.2196/46715 [published Online First: 20230801]
63. Kringle EA, Skidmore ER, Baum MC, et al. Stakeholders' Experiences Using Videoconferencing for a Group-Based Stroke Intervention During COVID-19: A Thematic Analysis. *The American journal of occupational therapy : official publication of the American Occupational Therapy Association* 2023;77(3) doi: 10.5014/ajot.2023.050111 [published Online First: 2023/06/14]
64. Zhu C, Tran PM, Dreyer RP, et al. Disparities in Internet Use Among US Stroke Survivors: Implications for Telerehabilitation During COVID-19 and Beyond. *Stroke* 2022;53(3):e90-e91. doi: 10.1161/strokeaha.121.037175 [published Online First: 2022/02/04]
65. Swietek K, Jones KA, Bettger JP, et al. What Explains Inequalities in Telehealth Utilization Among North Carolina Medicaid Beneficiaries? *Telemed J E Health* 2024;30(8):e2319-e26. doi: 10.1089/tmj.2023.0563 [published Online First: 20240510]
66. Kumurenzi A, Richardson J, Thabane L, et al. Effectiveness of interventions by non-professional community-level workers or family caregivers to improve outcomes for physical impairments or disabilities in low resource settings: systematic review of task-sharing strategies. *Hum Resour Health* 2023;21(1):48. doi: 10.1186/s12960-023-00831-7 [published Online First: 20230621]
67. Jesus TS, Belson S, Bosch J, et al. Implementation of a Community-Based Life After Stroke Centre in a Low-Resource Context: Barriers, Facilitators and Strategies in Onitsha, Nigeria. *Preprints* 2026;2026051778
68. Robert Wood Johnson Foundation. Learning from Abroad to Reimagine Health Knowledge Systems for Equity and Wellbeing 2026 [Available from: https://www.rwjf.org/en/grants/active-funding-opportunities/2026/learning-from-abroad-to-reimagine-health-knowledge-systems-for-equity-and-wellbeing.html.
69. Canneaux J, Sharpe RA, Orr N, et al. Physical activity interventions for older adults - an overview of systematic reviews. *BMC Public Health* 2026;26(1):205. doi: 10.1186/s12889-025-25002-2 [published Online First: 20260106]
70. OhioHealth. UpBEAT 2026 [Available from: https://www.ohiohealth.com/health-and-wellness/upbeat-activities-for-older-adults
71. Msomi NL, Ross AJ. Community service rehabilitation therapists' understanding of social accountability. *Afr J Prim Health Care Fam Med* 2024;16(1):e1-e9. doi: 10.4102/phcfm.v16i1.4473 [published Online First: 20240606]
72. Arntzen C, Sveen U, Hagby C, et al. Community-based occupational therapy in Norway: Content, dilemmas, and priorities. *Scand J Occup Ther* 2019;26(5):371-81. doi: 10.1080/11038128.2018.1548647 [published Online First: 20190111]
73. Hyett N, Kenny A, Dickson-Swift V. Re-imagining occupational therapy clients as communities: Presenting the community-centred practice framework. *Scand J Occup Ther* 2019;26(4):246-60. doi: 10.1080/11038128.2017.1423374 [published Online First: 20180109]
74. Bardi G, Pereira BP, Vasters GP, et al. Social occupational therapy on the agenda: contemporary practices, research, and reflection. *Braz J Occup Ther* 2023;31:e2301. doi: 10.1590/25268910.ctoED312023012
75. Wenborn J, Mountain G, Moniz-Cook E, et al. Community Occupational Therapy in Dementia intervention for people with mild to moderate dementia and their family carers in the UK: the VALID research programme including RCT. Southampton (UK): National Institute for Health and Care Research 2023.
76. Reitz SM, Scaffa ME, Dorsey J. Occupational Therapy in the Promotion of Health and Well-Being. *Am J Occup Ther* 2020;74(3):7403420010p1-10p14. doi: 10.5014/ajot.2020.743003
77. Stotz N, Steiner V, Polavarapu M, et al. Occupational Therapy's Role in Population Health With Older Adults. *INQUIRY* 2025;65 doi: 10.1177/00469580251366149
78. Osei-Twum JA, Wiles B, Killackey T, et al. Impact of Project ECHO on Patient and Community Health Outcomes: A Scoping Review. *Acad Med* 2022;97(9):1393-402. doi: 10.1097/acm.0000000000004749 [published Online First: 20220524]
79. Kenny C, Priyadarshini A. "Mind the Gap" - An overview of the role of the Extensions Community Healthcare Outcomes (ECHO) model in enhancing value in health care delivery. *AIMS Public Health* 2023;10(1):94-104. doi: 10.3934/publichealth.2023008 [published Online First: 20230222]
80. Peterson C, Ramm K, Ruzicka H. Occupational therapists in rural healthcare: a "jack of all trades". *Occup Ther Health Care* 2003;17(1):55-62. doi: 10.1080/J003v17n01_05
81. Usher R, Payne C, Real S, et al. Project ECHO: Enhancing palliative care for primary care occupational therapists and physiotherapists in Ireland. *Health Soc Care Community* 2022;30(3):1143-53. doi: 10.1111/hsc.13372 [published Online First: 20210515]

82. Castillo Y, Barlow K, McKinnon S. Group telementoring using project ECHO proves efficient platform for knowledge translation in occupational therapy. *Br J Occup Ther* 2025;88(11):717-29. doi: 10.1177/03080226251340861 [published Online First: 20250617]
83. Americam Occuptational Therapy Association. Request for Information: Improving Access to Health Care in Rural and Underserved Areas 2023
84. Prusynski RA, Amaravadi H, Brown C, et al. Reductions in Therapy Provision in Skilled Nursing Facilities After Medicare Payment Reform and During the COVID-19 Pandemic: An Interrupted Time Series Analysis. *Arch Phys Med Rehabil* 2025;106(10):1480-89. doi: 10.1016/j.apmr.2025.05.020 [published Online First: 20250606]
85. Mroz TM, Dahal A, Prusynski R, et al. Variation in Employment of Therapy Assistants in Skilled Nursing Facilities Based on Organizational Factors. *Med Care Res Rev* 2021;78(1_suppl):40s-46s. doi: 10.1177/1077558720952570 [published Online First: 20200828]
86. Jesus TS, Landry MD, Dussault G, et al. Human resources for health (and rehabilitation): Six Rehab-Workforce Challenges for the century. *Hum Resour Health* 2017;15(1):8. doi: 10.1186/s12960-017-0182-7 [published Online First: 20170123]
87. Centers for Medicare & Medicaid Services (CMS). Rural Health Transformation (RHT) Program 2025 [Available from: https://www.cms.gov/priorities/rural-health-transformation-rht-program/overview.
88. Berini CR, Bonilha HS, Simpson AN. Impact of Community Health Workers on Access to Care for Rural Populations in the United States: A Systematic Review. *J Community Health* 2022;47(3):539-53. doi: 10.1007/s10900-021-01052-6 [published Online First: 20211124]
89. Ohio University. Community health workers bridge gaps in care across Ohio 2026 [Available from: https://www.ohio.edu/news/2026/02/community-health-workers-bridge-gaps-care-across-ohio.
90. Mapulanga M, Kgarosi K, Maluleke K, et al. Evidence of community health workers' delivery of physical rehabilitation services in sub-Saharan Africa: a scoping review. *BMJ Open* 2024;14(5):e079738. doi: 10.1136/bmjopen-2023-079738 [published Online First: 20240530]
91. Pascoe T, Mudholkar A, Burke S, et al. Allied Health Student-Led Clinics: An Opportunity for Workforce Development. *Aust J Rural Health* 2025;33(2):e70034. doi: 10.1111/ajr.70034
92. Mudholkar A, Burke S, Obamiro K. Student-Led Falls Prevention Program for Community-Dwelling Older Adults in a Rural Community: A Pilot Study. *Aust J Rural Health* 2025;33(1):e13221. doi: 10.1111/ajr.13221
93. O'Connell C, Woodruffe S, Middleton K, et al. A Student-Led Telehealth Group Falls Prevention Exercise Program for Older Adults in a Rural Community: A Pilot Study. *Aust J Rural Health* 2025;33(6):e70109. doi: 10.1111/ajr.70109
94. Klima D, Austin N, Avila K, et al. Student coaching in a rural community fall prevention program: An exploratory study. *Gerontol Geriatr Educ* 2023;44(1):88-101. doi: 10.1080/02701960.2022.2098285 [published Online First: 20220718]
95. Rural Information Hub. Program for All-Inclusive Care for the Elderly (PACE). Rural Services Integration Toolkit 2026 [
96. University of Minnesota Rural Health Research Center. Rural-Urban Differences in PACE Organization and Enrollee Characteristics: Rural Health Research Gateway; 2025 [
97. National Advisory Committee on Rural Health and Human Services (NACRHHS). Programs of All-Inclusive Care for the Elderly in Rural America: Policy Brief and Recommendations to the Secretary: Health Resources and Services Administration, 2023.
98. Center for Health Care Strategies. PACE in Rural Communities: Emerging Evidence on Integrated Care for Older Adults 2025 [Available from: https://www.chcs.org/pace-in-rural-communities-emerging-evidence-on-integrated-care-for-older-adults/.
99. Centers for Medicare & Medicaid Services (CMS). GUIDE (Guiding an Improved Dementia Experience) Model 2026 [Available from: https://www.cms.gov/priorities/innovation/innovation-models/guide.