MISSOURI SUMMIT ON AGING | 2026

The Urgent Need for Fall Prevention and Occupational Therapy

How Clay County is adapting an evidence-based home hazard removal program for community impact

Kristen Lienhop, MSOT, OTR/L
Occupational Therapist | Limitless Living Solutions

November 2, 2026

SAFETY WHERE LIFE HAPPENS

The promise—and the gap

1 in 4

adults age 65+ report a fall each year

14+ million

older adults fall annually in the U.S.

At home

is where daily routines and hazards meet

The community question

We often respond after a fall. What would it take to make practical prevention available before the next one?

CDC, Older Adult Falls Data (2026)

A fall is rarely just a fall

Health

Injury, fear of falling, reduced activity, loss of confidence

Independence

A changed routine—or the beginning of needing more help

Community systems

EMS, emergency care, rehabilitation caregiver strain

Prevention is not only about removing a loose rug.

It is about preserving the ability to live everyday life.

Why the gap persists

- Older adults and caregivers may not recognize personal fall risks—or know where to turn.
- Home repair programs may focus on structural needs rather than individualized fall risk.
- Recommendations are not enough when a person cannot afford supplies or find a reliable installer.
- Prevention is fragmented across healthcare, aging services, housing, and family support.
- Rurality, transportation, limited income, and waitlists can make access harder.

The missing link is often not awareness alone—it is a supported path from assessment to action.

Occupational therapy connects the dots

Person

Strength, balance, vision, cognition, sensation, confidence, health

Task

Bathing, dressing, carrying items, reaching, stairs, nighttime routines

Environment

Lighting, surfaces, rails, bathroom layout, clutter, access

OT looks at the fit between the person, the activity, and the place—not the house in isolation.

Assessment → shared priorities → practical changes → training → follow-up

HARP: evidence-based, home-based, person-centered

Home Hazard Removal Program (HARP)

Developed by Washington University in St. Louis for delivery through the aging-services network.

- Delivered one-to-one in the older adult's home by an occupational therapist
- Designed for community-dwelling older adults who have fallen or worry about falling
- Manualized intervention with defined assessment and treatment components

HARP is not…

- A quick checklist alone
- A generic home inspection
- A list of recommendations left for the family to solve

What the HARP trial found

310

community-dwelling older adults enrolled

38%

lower rate of falls over 12 months vs. control

92%

adherence to recommended home modifications

Important nuance: the trial found a significant reduction in the rate of falls, but did not find statistically significant between-group differences in every secondary outcome.

Evidence supports the intervention—implementation still requires fit, access, and follow-through.

JAGS randomized clinical trial, 2021

What happens during HARP?

1	**Assess**	Abilities, fall-risk behaviors, and home hazards
2	**Collaborate**	Set client-led priorities and create a tailored hazard-removal plan
3	**Implement**	Use low-cost kit items; arrange more complex modifications
4	**Coach**	Practice safer routines and self-management strategies
5	**Revisit**	One to three sessions, plus a 30-minute booster at 3–6 months

The intervention is individualized

Low-cost / immediate

- Double-sided carpet tape
- Contrast tape or non-slip treads
- Motion/automatic nightlights
- Brighter lightbulbs
- Clutter and pathway changes

Equipment / task changes

- Shower chair or other adaptive equipment
- Safer transfer technique
- Change how items are carried or reached
- Rehearse safer routines

Installation support

- Grab bars and handrails
- More complex bathroom or entry changes
- Contractor/handyman coordination
- Verify the solution works for the person

A recommendation reduces risk only when it is feasible, properly installed, and used.

The local landscape: build alongside, not on top of

Clay County already has important home-modification and aging-services partners.

Northland Neighborhoods, Inc

Home modification resources, including essential and safety-related repairs

Rebuilding Together KC

Home modification resources, including Safe at Home and grant-supported work such as the Older Adult Home Modification Program

Other local partners

Community referrals, non-medical home care, PERS (personal emergency response systems)

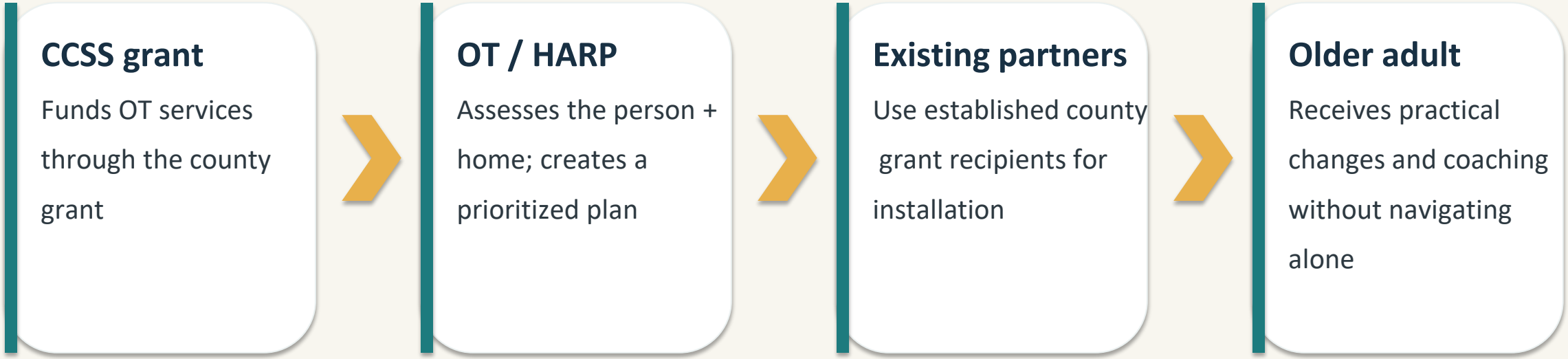
Opportunity for HARP: fill the gap between identifying fall risk and ensuring that the right, individualized modifications are completed.

Program development: the first plan meets reality

- The initial vision was to use aging-services funding to make OT-led prevention available in the community.
- We explored different delivery and payment models—including AAA funding and Medicare Part B reimbursement.
- Medicare billing proved to be a poor fit for many people already receiving Medicare Part A home-health services; or for those for whom have chosen Medicare Advantage plans
- Insurance eligibility and billing logistics risked becoming barriers to a service meant to be accessible.
- The key lesson: design around the participant and community infrastructure—not around the billing model.

HARP's evidence-based structure stayed central; the funding and delivery pathway had to adapt.

The current CCSS model



The model separates clinical decision-making from installation while connecting both through a shared plan.

Why this model is more workable

Keep the core

HARP assessment, collaborative goals, tailored plan, education, follow-up

Adapt the pathway

County grant funds OT; existing modification partners support installation

Reduce friction

Avoid making the older adult coordinate separate providers and pay out of pocket where possible

Implementation principle: preserve the intervention's essential elements while adapting local partnerships, funding, and workflow.

The real barrier is often implementation

A recommendation can fail when…

- The person cannot afford the modification.
- No family member is available to help.
- The contractor list is confusing or untrusted.
- The homeowner is overwhelmed by multiple applications.
- The fix is delayed until after another fall.

A community response should…

- Prioritize hazards with the participant.
- Match the solution to function and routine.
- Make the referral or installation handoff.
- Confirm completion and safe use.
- Reinforce behavior change at follow-up.

The program is not finished when the report is written.

Cost: invest in the right work, not every possible fix

$755–$1,555

estimated cost per participant in the proposed tiered model

- OT services: approximately $375–$975, depending on visit intensity
- Materials / adaptive equipment: approximately $300–$500*
- Handyman installation allowance: approximately $80
- Actual costs vary with individual needs, labor, and complexity.

*CCSS funding allows up to $2000 for home safety repairs

Why tiering matters

Not every person needs the same number of OT visits or every home the same level of modification.

Why partnership matters

Shared funding and existing installation capacity can stretch limited dollars.

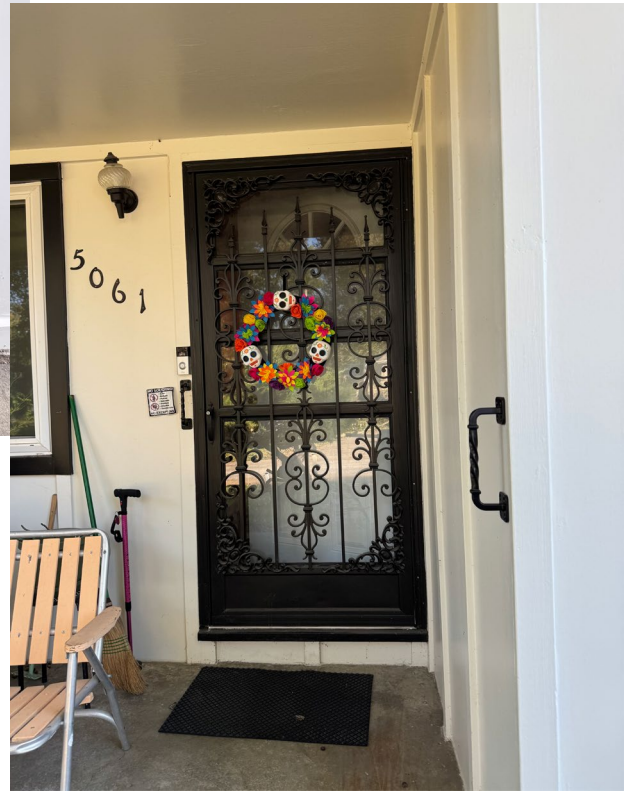
How will we know it is working?

- Reach: referrals received, eligibility, enrollment, and wait time
- Delivery: OT visits completed; HARP elements provided; booster completion
- Action: hazards identified, recommendations accepted, modifications completed
- Participant outcomes: confidence, safer behaviors, daily activity priorities, falls reported
- Equity and access: unmet need, out-of-pocket burden, rural access, referral source
- System learning: common barriers, partner response time, cost per participant

Start with a feasible dashboard; improve it as the program matures.



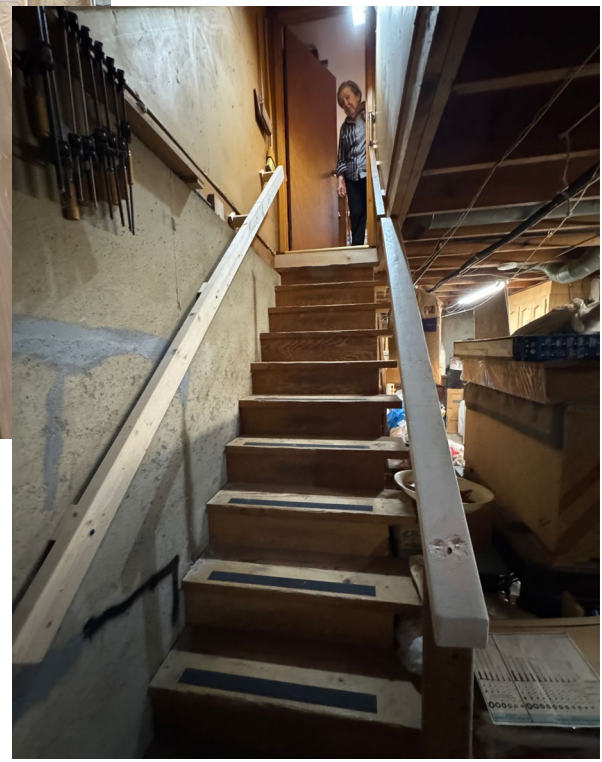
Before



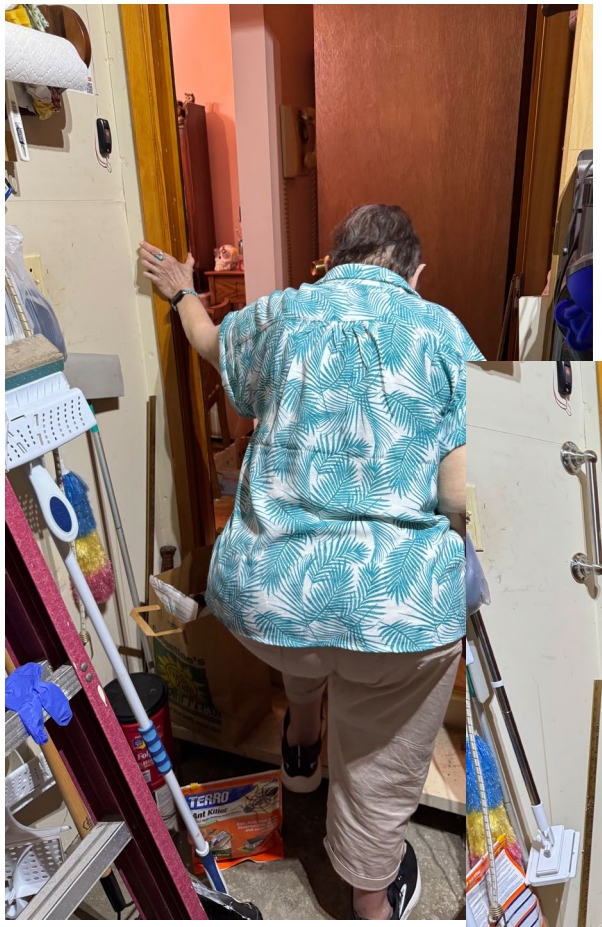
After



Caption



Caption



Before



After



After



Before



After

Community Referrals

REFERRALS

Nonmedical home care

Legal assistance

Transportation services

EQUIPMENT

PERS

Medication Managment

EDUCATION

Diagnosis-specific websites/resources

Checklists/Self-Assessments

The goal is not simply safer homes.

It is safer daily living—with a path to make the changes real.

What community leaders can do next

Fund the bridge

Support both expert assessment and the practical implementation of recommendations.

Connect the network

Create clear referral pathways across health, housing, aging services, EMS, and local repair partners.

Normalize prevention

Make falls screening and home safety conversations routine—
not crisis-driven.

Ask of every proposed home-modification program:

Who assesses fall risk? Who pays? Who installs? Who trains? Who follows up?

Questions & Discussion

What would make an OT-led fall-prevention program workable in your community?

What if we could promote safer daily living—with a path to make impactful changes.

Selected sources & resources

- WashU HARP program overview: starklab.wustl.edu/interventions-resources/harp/
- JAGS randomized clinical trial (2021): doi.org/10.1111/jgs.17103
- CDC Older Adult Falls Data: cdc.gov/falls/data-research/
- CDC STEADI: cdc.gov/steadi/
- Medicare home health coverage: medicare.gov/coverage/home-health-services

Evidence note: HARP reduced the rate of falls; the trial did not show statistically significant differences in all secondary outcomes.

Backup: questions to take back to your community

- Which existing program could provide installation support after an OT assessment?
- What funding stream could pay for prevention before a fall occurs?
- Where do referrals currently stall—awareness, eligibility, assessment, cost, or installation?
- What is the smallest pilot that could test the workflow over six months?
- What outcomes would convince local decision-makers to continue funding?

Thank You!

Limitless Living Solutions:

Safety Where Life Happens

OT-Led Home & Driving Assessments

Kristen Lienhop, MSOT, OTR/L

kristen@limitlessathome.com