

Addressing Dementia Risk in U.S. Rural Communities: A Scoping Review of Interventions

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BACKGROUND

- Rural populations experience higher dementia risk, later diagnosis, and faster cognitive decline.
- Up to 45% of dementia risk may be attributable to modifiable factors.
- Rural communities face barriers including limited healthcare access, workforce shortages, transportation challenges, and social isolation.
- Although effective dementia interventions exist, evidence specific to rural U.S. communities remains fragmented.
- Understanding successful rural intervention strategies is essential to reduce dementia disparities and improve cognitive health outcomes.

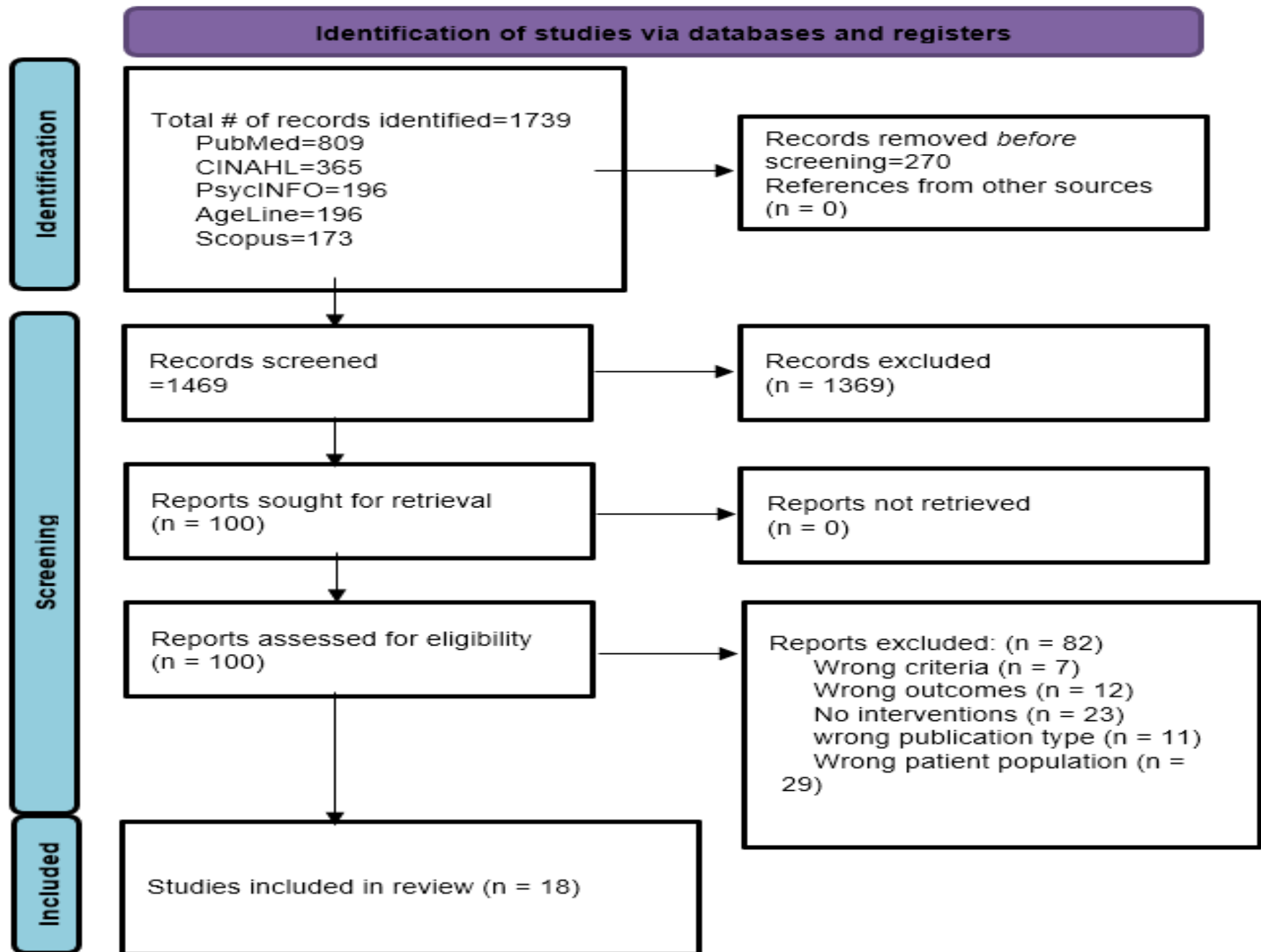
PURPOSE

To synthesize interventions implemented in rural U.S. communities that:

- Reduce dementia risk
- Delay cognitive decline
- Promote early detection of cognitive impairment

METHODS

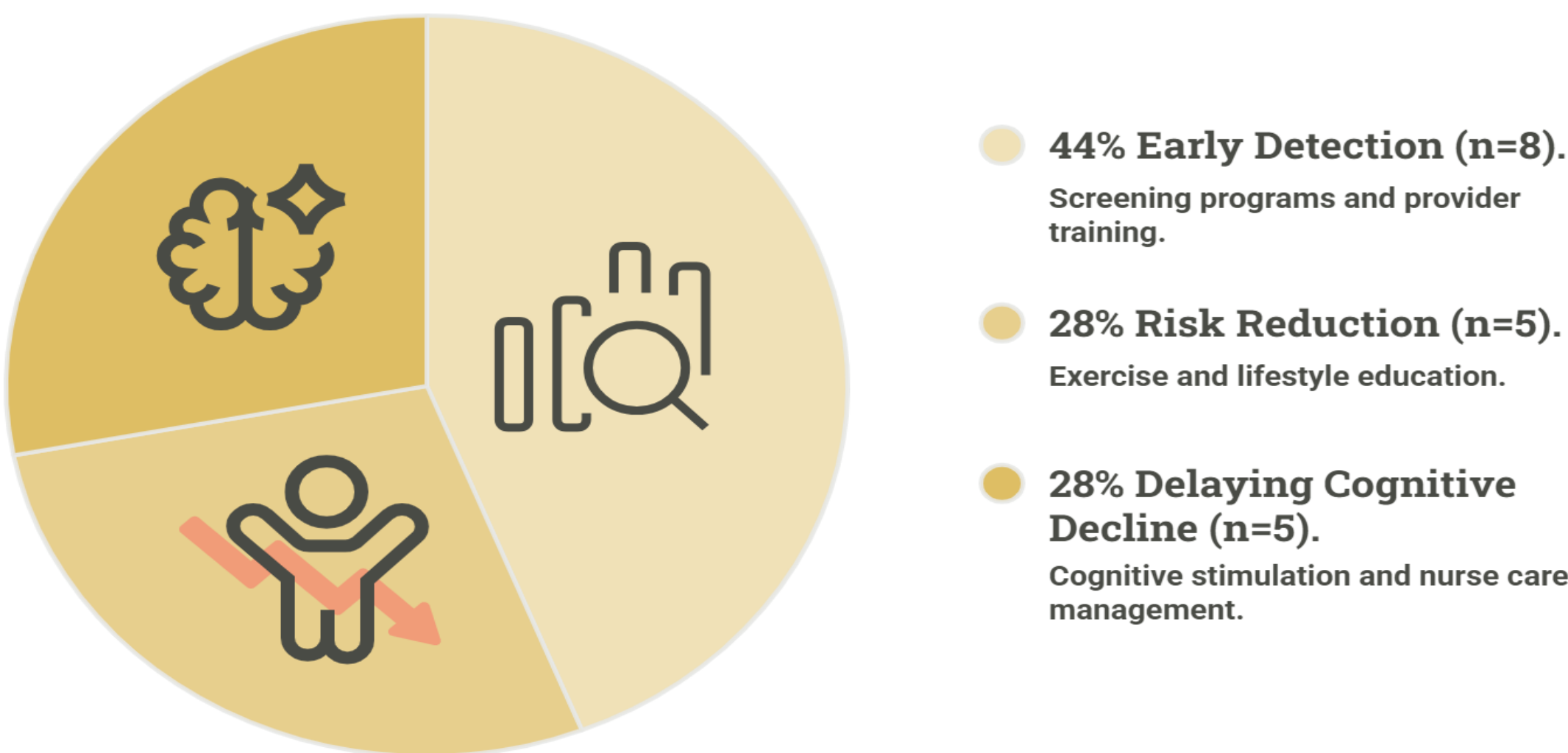
- Databases included PubMed, CINAHL, PsycINFO, AgeLine, and Scopus
- Search strategies developed with the health sciences librarian around 3 keywords: dementia, rural, interventions; controlled vocabulary were used for each database
- Searches were finalized in June 2025



RESULTS

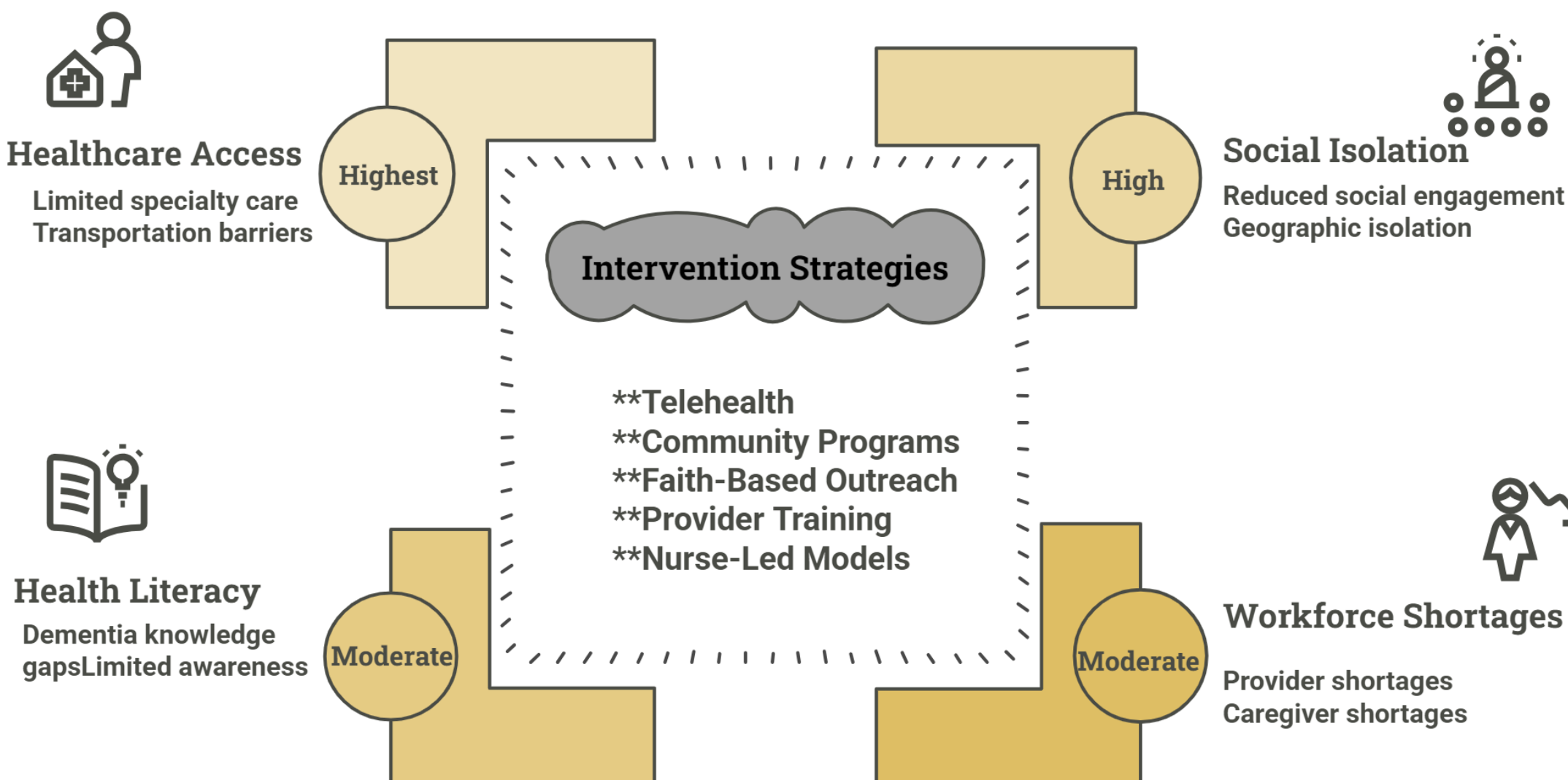
- **18 studies** published between **1996–2025** met inclusion criteria and were conducted primarily in the **Southern** (n=8) and **Midwestern** (n=8) United States.
- Interventions clustered into three categories: **Early Detection** (n=8; 44%), **Risk Reduction** (n=5; 28%), and **Delaying Cognitive Decline** (n=5; 28%).

Figure 1: Types of Rural Dementia Interventions (N = 18)



- Common intervention strategies included **telehealth delivery, community-based programs, faith-based outreach, nurse-led models, and provider training.**
- The most frequently addressed rural challenges were limited healthcare access, social isolation, low health literacy, and workforce shortages.
- Interventions **generally improved dementia knowledge, screening uptake, physical activity, functional health, and program feasibility**, but few integrated prevention, detection, and long-term management across the dementia care continuum.

Figure 2: Key Rural Challenges Targeted by Included Interventions



RESEARCH GAPS

- **Limited rigorous evidence:** Only 2 randomized controlled trials.
- **Need for longitudinal studies:** Few assessed sustained outcomes.
- **Underrepresented risk factors:** Hearing loss, smoking, alcohol use, and chronic disease management.
- **Limited focus on equity:** Limited focus on discrimination and structural determinants.
- **Fragmented care continuum:** Most interventions targeted prevention, delay, or detection separately.

IMPLICATIONS FOR PRACTICE

- Expand telehealth-based dementia services.
- Leverage nurses, community health workers, and faith-based organizations.
- Strengthen dementia screening and referral pathways.
- Develop integrated rural dementia care models.

CONCLUSION

- Rural dementia interventions are feasible and acceptable when adapted to local contexts.
- Community-based and telehealth approaches show the greatest promise.
- Future interventions should integrate prevention, early detection, and long-term dementia management while addressing structural inequities.

REFERENCES



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