HMA
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Evidence Baseline

Home-Based Personal Care and Respite Services in LTSS Populations

Report Roadmap

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Evidence interpretation note

Most studies included in the evidence base are observational or quasi-experimental. This report therefore treats many findings as strong associations unless randomized or controlled trial evidence is explicitly noted. The strongest and most consistent signals are service intensity, early intervention,

workforce stability, and consumer-directed care. Cost-effectiveness findings should be read as strongest for HCBS vs institutional care and more indirect for HCBS vs no or inadequate formal care, where studies typically measure unmet need, delayed service initiation, or service disruption rather than a true no-care control group.

PCS/PAS-specificity note: Where evidence directly studies personal care services, personal assistance services, attendant care hours, personal care assistants, or consumer-directed personal care, the report now states that PCS/PAS-specific conclusion in the relevant outcome section. Findings from broader waiver, MLTSS, transition, or system-level studies remain framed as HCBS-wide. Key PCS/PAS anchors include PAS intensity and hospitalization [1], consumer-directed personal care [5], PCS/attendant-care hours and nursing home placement [7], [8], PCA wages and HCBS access [14], PAS-related Medicaid payment offsets [18], and consumer-directed personal care outcomes [27].

Executive Summary

This evidence baseline synthesizes research on Medicaid-funded Home and Community-Based Services (HCBS) that support older adults and people with disabilities in long-term care. It focuses on home-based personal care services, consumer-directed personal assistance (see Key Definitions for consumer-directed services encompassing FMS and agency managed/family-selected/known caregivers), homemaker services, and caregiver respite, examining their impact on hospitalizations, emergency department (ED) use, nursing home placement, functional status, quality of life, caregiver outcomes, and system costs. This version adds an outcome-specific cost-effectiveness lens, comparing HCBS to institutional care where direct evidence exists and to no or inadequate formal care where the evidence is indirect. The goal is to highlight which service features and delivery models matter most, how outcomes translate into cost offsets or avoided costs, and where limitations or evidence gaps remain. Below are the key findings by outcome domain:

WHY THIS MATTERS

Home- and community-based services (HCBS) are not only preferred by many beneficiaries; they also represent a high-value strategy that can reduce hospital use, delay costly institutional care, support caregiver sustainability, and improve quality of life when delivered at sufficient intensity and with appropriate supports. The cost case is strongest when HCBS substitutes for institutional care or prevents avoidable acute and crisis utilization.

Key evidence at a glance

HOSPITAL USE	NURSING HOME PLACEMENT
10–30% lower [1], [40] High-intensity HCBS is associated with lower hospitalization rates than minimal support [1].	**~8 months longer** [29] Adequate home care extends community tenure; consumer-directed care cut nursing home use by roughly 18% in trial evidence [5], [7], [29].

CAREGIVER STRESS **Dose matters** [34]–[37], [41] Adult day services reduce daily stress; in-home help often needs to reach meaningful intensity to reduce burden [34]–[37], [41].	**COST EFFECTIVENESS** **$1.3k–$2.9k/mo** [38], [49]–[51] Matched state studies show lower monthly per-person costs for HCBS than nursing facility care; national modeled annual savings are $43.9k–$57.3k [47], [48].
SATISFACTION & AUTONOMY **62% to 92%** [10] Living-arrangement satisfaction rose after nursing home-to-community transition; self-direction improves control and satisfaction [10], [31], [32].	

The dashboard preserves the findings from the draft key-evidence table and adds an outcome-specific cost-effectiveness lens for quick internal review. See Appendix A for citation-level detail and Appendix B for woodwork-effect counterarguments.

Cost-effectiveness by outcome

Across outcomes, HCBS value is strongest when services prevent high-cost events—hospitalizations, ED visits, nursing home placement, functional decline, and caregiver burnout—while preserving community living. Direct HCBS versus institutional comparisons consistently show lower per-person LTSS costs; HCBS versus no formal care is less directly studied, so this report uses unmet need, service disruption, and delayed service initiation as proxies.

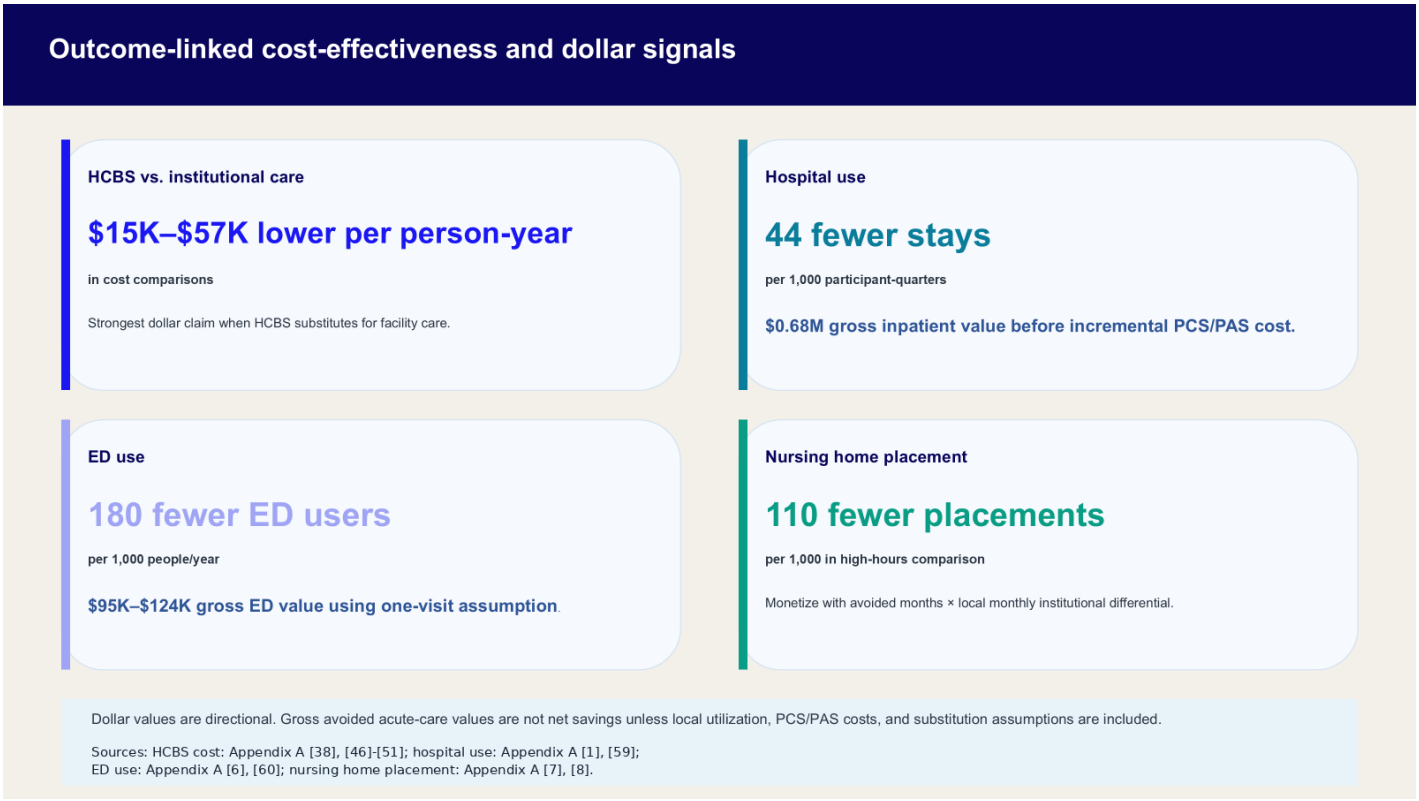


Exhibit ES-1. Outcome-linked cost-effectiveness and utilization signals. Source: HCBS vs institutional care: Appendix A citations [38], [46]–[51]; hospital use: Appendix A citations [1], [59]; ED use: Appendix A citations [6], [60]; nursing home placement: Appendix A citations [7], [8].

Outcome	Cost-effective mechanism	Evidence signal and comparator
Hospitalizations	Adequate service intensity and coordination can prevent avoidable hospital use while preserving the lower LTSS cost profile of HCBS.	HCBS vs institutional: mixed hospitalization findings because nursing homes can treat some issues on site, but nurse-coordinated HCBS had lower total monthly Medicare + Medicaid costs in one matched study [46]. HCBS vs no/inadequate care: service cuts, insufficient hours, and disruptions are associated with more hospital use [1], [40].
ED visits	Timely home support can prevent ED visits that arise from unmet personal care needs.	HCBS vs no/inadequate care: unmet need is associated with much higher ED use (52% vs 34%) [6]. The strongest ED-specific signal is unmet need; consumer-directed personal care shows lower related acute utilization in hospitalization outcomes [5], [27].
Nursing home placement	HCBS is most cost-effective when it delays or prevents institutional placement.	HCBS vs institutional: matched studies report lower monthly or annual spending for HCBS than nursing facility comparators, including California, Kansas, Alabama, Indiana, and Missouri findings [38], [46], [49]–[51]. No/inadequate care: delayed home services shorten community tenure [29], [30].
Functional status	Maintaining ADLs, reducing falls, and slowing decline can postpone high-cost services or facility entry.	HCBS vs institutional: Aging in Place participants had better functional trajectories and lower costs than matched nursing home residents [25], [46]. No/inadequate care: unstable support is associated with greater decline and falls [9], [44].
Quality of life	HCBS can deliver preference-concordant care at lower per-person cost than institutional replacement care.	HCBS vs institutional: community transition increased living-arrangement satisfaction from about 62% to 92% [10]. No-care evidence is limited; the value case is strongest around autonomy, dignity, and avoided institutionalization.
Caregiver outcomes	Formal support and meaningful respite sustain the unpaid care network that makes community living possible.	HCBS/respite vs inadequate support: adult day services reduce daily stress, while very low-dose respite shows limited measurable benefit [20], [34]–[37], [41]. Unmet needs are linked to greater crisis use [6].

Narrative summary by outcome domain

Hospitalization: Adequate home care is associated with lower hospitalization rates, particularly when it substitutes for nursing home care, suggesting potential cost savings and improved outcomes. For example, high-intensity personal care (around 8+ hours/day) is linked to substantially lower hospitalization rates than low-intensity care, indicating a dose-response relationship. However, when comparing similarly frail individuals, nursing home residents may appear less likely to be hospitalized—not because home care is harmful, but because nursing facilities can manage many issues on-site, whereas HCBS users are more likely to be transferred to the hospital [2].

Emergency Department (ED) Visits: Meeting home-care needs is associated with lower emergency department use. Nearly half of those with unmet care needs (about 52%) had an ER visit, compared with

about one-third when needs were fully met (about 34%) [6]. The strongest ED-specific evidence in this report is the unmet-need comparison; consumer-directed personal care shows related acute-utilization benefits in hospitalization outcomes [5], [27].

Nursing Home Placement: Sufficient HCBS can delay or prevent nursing home placement. Individuals receiving more hours of personal care have a lower likelihood of entering a nursing facility (for example, one study showed approximately 25% placement among those with above-average care hours, versus about 36% for those with minimal hours). Earlier service initiation also extends time at home; one program found participants remained in the community about 8 months longer before requiring nursing home care. Consumer-directed programs, in which individuals hire their own aides, including family caregivers, appear particularly effective, with participants less likely to move to a nursing home than those in agency-directed care [5].

Functional Status: Keeping the same aide and giving clients more control helps maintain or even improve daily functioning (and also reduces falls). For example, high continuity of home care aides is linked to more cases of stable or improved ability to perform daily activities and fewer falls for HCBS users [9]. Similarly, consumer-directed care (including use of paid family caregivers) is associated with slower functional decline and a lower risk of falls compared to traditional agency-directed care models [27]. HCBS recipients have even shown slower loss of functional abilities over 1–2 years compared to similar nursing home residents, suggesting community living may better support independence [25].

Quality of Life: Community transitions and consumer-directed care are associated with higher satisfaction and improvements in selected aspects of quality of life. For example, individuals who moved from nursing homes back to the community reported substantially higher satisfaction with their living situation one year later (about 92% satisfied, up from about 62% before transition) [10]. Similarly, participants in consumer-directed programs consistently report greater satisfaction and autonomy than those receiving traditional services. At the same time, formal health-related quality-of-life measures (e.g., EQ-5D) often show no significant difference between HCBS and institutional care groups [12], suggesting that the primary benefits of home care may be more evident in autonomy and lived experience than in measured clinical status.

Caregiver Outcomes: Home-based services can reduce family caregiver stress, particularly when support is sufficient in intensity and duration. Adult day services used several days per week are associated with lower daily stress and better mood, and earlier use of in-home or adult day services can delay nursing home placement in dementia caregiving [30], [34], [35]. In contrast, low-dose respite (for example, a few hours per week or an occasional short break) has limited RCT evidence for measurable burden or depression effects; several studies suggest more substantial relief is needed to achieve measurable reductions in strain [20], [34]–[37], [41].

Cost-Effectiveness Headline and Fiscal Guardrails: HCBS has a strong per-person cost advantage when it substitutes for institutional care. The woodwork concern remains a fiscal guardrail, not the headline: recent state-level evidence found no increase in Medicaid enrollment among adults ages 65+ in aggressive HCBS expansion states, while each $1.00 of new HCBS spending was associated with $0.26 in lower nursing home spending and $0.74 in net LTSS spending growth. The practical conclusion is that HCBS is most cost-effective when targeted to people at meaningful risk of institutional care, delivered at sufficient intensity, and monitored for actual substitution rather than assumed blanket savings [38], [47]–[54].

Workforce, Access, and Self-Direction Administration: A stable, well-supported workforce and infrastructure are critical for HCBS success. Studies link higher pay for personal care aides to more people choosing HCBS over nursing homes [14], and steady caregiver assignments (low turnover) correlate with better outcomes like maintained function. Administrative supports also matter for self-direction at scale. In Full Self-Direction, Financial Management Services (FMS) support participants or representatives who serve as the employer by handling payroll, taxes, and related employer paperwork. In Hybrid Self-Direction, including Agency with Choice models, the provider agency generally serves as the employer of record and handles payroll, insurance, tax, and compliance functions, while the participant recruits preferred workers and directs day-to-day services. Together, these administrative structures reduce burden, protect compliance, and make both full and hybrid self-direction feasible for participants and families.

Federal Comparators (VA Programs): Federal programs for veterans show similar benefits and offer lessons for Medicaid. Veteran-directed home and community-based services emphasize participant choice, dignity, the ability to remain at home, and satisfaction with flexible supports [62]. The Program of All-Inclusive Care for the Elderly (PACE), a Medicare-Medicaid integrated model, has evidence of lower hospital and nursing home use in several evaluations, although the overall evidence base remains largely observational [61]. These comparators bolster evidence that more home-based support and control can improve outcomes across different systems.

Baseline Overview

This report provides a comprehensive synthesis of evidence on Medicaid-funded home and community-based services (HCBS) for older adults and people with disabilities. It examines four core HCBS types—Personal Care Services (PCS), Personal Assistance Services (PAS), Homemaker Services, and Caregiver Respite, defining each and explaining their roles in supporting individuals' ability to remain in the community. Drawing from over 100 sources, including peer-reviewed studies, government evaluations, and policy reports, the analysis covers a decade of research across multiple states and programs. Readers will find data on outcomes such as hospitalization rates, nursing home entry, caregiver well-being, and cost savings, along with a discussion of methodological limitations and context-specific factors. The report places special emphasis on system-level and economic impacts, as well as recent advances in caregiver respite evidence. Together, these findings offer insight into how HCBS contributes to better health, enhanced quality of life, and more efficient resource use within Medicaid and related programs.

WHY THIS MATTERS

Decision-makers need a clear synthesis of what works in HCBS. This report translates a large and complex evidence base into actionable insights about which service models, intensities, and delivery approaches drive better outcomes and system efficiency.

Scope and key definitions

This report synthesizes evidence on four primary types of Medicaid-funded home and community-based services (HCBS) designed to support older adults and people with disabilities in community settings.

Personal Care Services (PCS): PCS provide hands-on assistance with Activities of Daily Living (ADLs) such as bathing, dressing, eating, toileting, and transferring. Typically provided by home health aides or

personal care assistants from a licensed agency, PCS are designed to help individuals with significant functional limitations remain safe in their homes.

Personal Assistance Services (PAS): Often used interchangeably with PCS, PAS also refers to hands-on ADL and IADL support. Under consumer direction, the beneficiary (or their representative) has employer and/or budget authority, meaning they can hire, train, schedule, and dismiss their own care workers. This model often enables the hiring of known and trusted caregivers, including family members (where permitted by state policy), as paid providers.

Homemaker Services: Distinct from personal care, homemaker services focus on Instrumental Activities of Daily Living (IADLs) and general household support. Tasks include meal preparation, housekeeping, laundry, and grocery shopping. These services are intended to help maintain a safe and healthy home environment for individuals who may not need hands-on personal care but cannot manage household tasks independently.

Caregiver Respite: Respite is a service designed to provide temporary relief to unpaid caregivers (e.g., family or friends). It can be delivered in various settings: in the beneficiary's home, at an adult day center, or in a residential facility for a short-term stay. Respite aims to reduce caregiver stress and burnout, thereby sustaining the informal caregiving relationship and delaying the need for institutional placement.

Self-Direction: Self-direction is a nationally recognized Medicaid Home and Community-Based Services (HCBS) model that empowers participants with choice and control over their long-term services. In general, two approaches allow individuals to direct their own care:

- Full Self-Direction (Participant as Employer): Also called employer authority (and often budget authority) in CMS guidance, this model makes the participant or family representative the legal employer of support workers. The participant controls hiring, training, scheduling, supervision, and termination, while a Financial Management Services (FMS) entity handles payroll, taxes, and related paperwork. This gives the participant maximum control over who provides care, how services are delivered, and how Medicaid funds are used within an approved plan. Some programs also allow family members or friends to be paid workers, subject to state rules. Federal Medicaid authorities, including §1915(j) and §1915(k), authorize participant-directed services with FMS support.
- Hybrid Self-Direction (Agency with Choice): Often called Agency with Choice, this co-employment model splits employer responsibilities between the participant and a provider agency. The agency serves as the employer of record and handles hiring paperwork, payroll, taxes, insurance, and other administrative requirements, while the participant recruits preferred staff and directs the who, when, and how of daily services. This approach preserves participant choice and budget authority while reducing employer burden. CMS recognizes Agency with Choice as a valid hybrid self-direction model in which the participant acts as a managing or supervisory employer and the agency remains the legal employer. In short, it offers more choice than traditional agency-directed care with added administrative support.

Evidence base and methodology

We reviewed 100+ sources for this evidence baseline, including peer-reviewed studies, government program evaluations, and policy reports. The body of research is broad and diverse, covering multiple states and programs over the past decade. It includes a few randomized controlled trials (for example, the landmark Cash & Counseling Demonstration) and many observational or quasi-experimental studies (using methods like natural experiments, comparison groups, and statistical adjustments) that analyze

linked Medicare and Medicaid data. Key outcomes examined across these sources range from health care utilization (e.g., hospitalizations, ER visits) to institutionalization rates, functional and quality-of-life metrics, caregiver well-being, and cost outcomes.

Methodological limitations: Most studies are observational, meaning they observe outcomes under different care scenarios without true random assignment. This makes it challenging to prove causation, since people who receive HCBS may differ systematically from those who do not (even with statistical controls for health and disability levels). Additionally, many findings are context-specific, often drawn from a single state's program or a particular population, which can limit generalizability to other settings. Another limitation is that studies frequently bundle multiple services together under the "HCBS" umbrella, so it can be hard to isolate the effect of any one service (e.g., the unique impact of just homemaker services or just respite). These factors should be kept in mind when interpreting the results below.

A substantial portion of this review is dedicated to system-level and economic outcomes, including an outcome-by-outcome cost-effectiveness lens. The report distinguishes direct HCBS-versus-institutional comparisons from indirect HCBS-versus-no/inadequate-care evidence. Direct cost evidence is strongest for nursing home substitution; indirect evidence uses unmet needs, service cuts, and delays as proxies for what happens when formal support is absent or inadequate. The review also includes HCBS cost-effectiveness, spillover effects on Medicare spending for dual eligibles, workforce/access drivers, consumer-directed models, VA HCBS comparators, and caregiver respite evidence.

Outcome 1: Hospitalizations

PCS/PAS-specific interpretation: This outcome can be narrowed most directly to PAS for the dose-response finding: among Pennsylvania HCBS users, medium/high PAS was associated with lower quarterly hospitalization risk than low PAS when PAS was used alone or with delivered meals [1]. The dollar translation remains a gross avoided-inpatient-value scenario because the study does not report incremental PCS/PAS cost or state-paid hospital amounts.

WHY THIS MATTERS

Preventing hospitalizations is one of the clearest pathways to lower costs and improved outcomes. HCBS can reduce avoidable hospital use when service levels are sufficient and reliably delivered, making service intensity an important policy and program design consideration.

Across the evidence base, individuals receiving more intensive home-based services tend to experience fewer hospitalizations [1]. (Exhibit 1) This suggests that by providing adequate support at home, many acute health crises can be prevented or managed early. For example, studies have found that people receiving higher levels of personal assistance or Medicaid waiver services have lower hospitalization risk than those receiving fewer hours or lower service volume, indicating a dose-response relationship between service intensity and reduced hospital use [1], [40]. Additionally, a multi-state study found that older dual-eligible seniors who transitioned from nursing homes to HCBS had a higher chance of

potentially preventable hospitalization than those who remained in nursing homes [4]. Conversely, when authorized personal care or waiver service volume is reduced, hospitalization risk tends to increase [40].

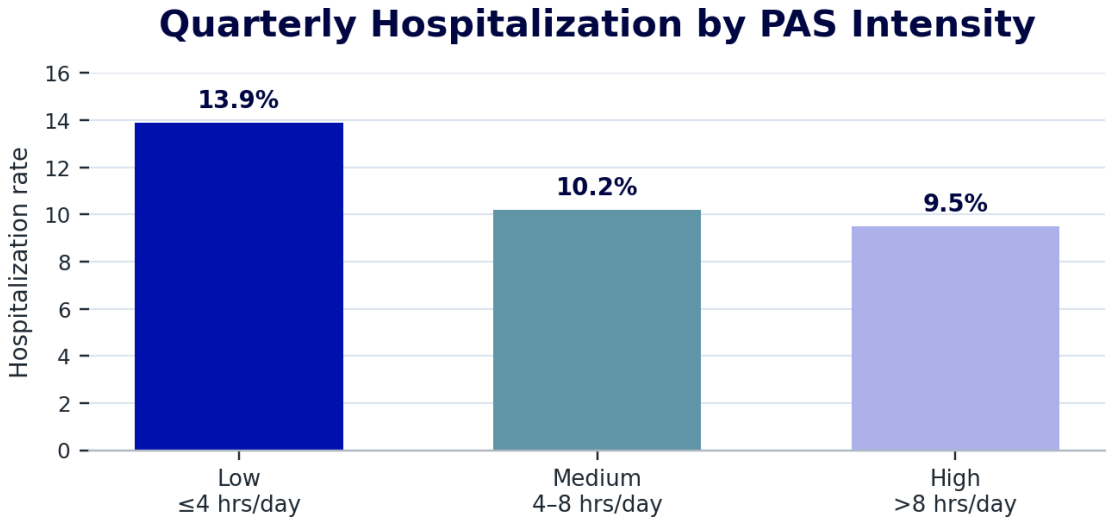


Exhibit 1. Higher PAS intensity is associated with lower quarterly hospitalization rates. Source: Appendix A, citation [1]

It's important to interpret comparisons with institutional care carefully. Nursing homes typically report lower hospitalization rates than home care, but research indicates this is due to differences in care context rather than an inherent advantage in outcomes [2]. Nursing facilities have 24/7 nursing staff and on-site medical care, so they can often handle issues (e.g., IV medications, minor infections) without sending residents to the hospital. HCBS participants, even with good support, may be sent to the hospital for issues that nursing homes could manage in-house. Similarly, a Connecticut Medicaid study reported that a significant portion of hospital admissions among HCBS participants were flagged as potentially preventable, underscoring ongoing gaps in medical management. To define potentially preventable admissions, the study used the AHRQ Prevention Quality Indicators (PQIs), a claims-based algorithm that identifies conditions that should be prevented by good outpatient care (for example, uncontrolled diabetes, dehydration, and COPD) [16]. Rigorous analyses that controlled for individuals' health status found that community-based LTSS users had higher hospitalization rates than similar nursing home residents [2], [3], reflecting care-setting differences rather than any shortcoming of home care. In other words, home-based care itself is not causing more hospitalizations; it's just that in a crisis, people living at home are more likely to go to an ER or hospital, whereas nursing home residents receive some acute treatments on-site.

Nevertheless, when provided at sufficient levels, HCBS generally appears protective against hospitalizations [1]. Notably, consumer-directed care models show particularly strong results: participants who direct their own care are less likely to be hospitalized than those receiving traditional agency-managed services [5], [27]. For example, in one state's Medicaid program, switching to a consumer-directed personal assistance model was associated with substantially lower odds of hospitalization [27]. Personal assistance services were also linked to reduced hospital payments in a Massachusetts Medicaid study of working-age adults with disabilities [18].

Cost-effectiveness lens: Hospitalization findings should be interpreted with the setting caveat noted above. Nursing homes can manage some episodes on site, which may lower transfers, but total per-person costs still tend to be higher in institutional settings. HCBS becomes most cost-effective when service intensity, continuity, and care coordination prevent avoidable hospital use without increasing

LTSS costs; the Aging in Place cost study found $1,591.61 lower total Medicare and Medicaid costs per month for nurse-coordinated community care relative to nursing home care [46]. Evidence versus no or inadequate care is indirect but directionally consistent: insufficient service intensity is associated with higher hospitalization risk [1], [40].

Metric	Quantification	Dollar value	Caveat
PAS effect [1]	13.9% quarterly hospitalization at <=4 hrs/day vs 10.2% at 4-8 hrs/day and 9.5% at >8 hrs/day; 37-44 fewer stays per 1,000 PAS users per quarter.	Annualized gross value: 148-176 fewer stays x $9,900-$15,600/stay = about $1.5M-$2.7M per 1,000 users/year [59].	Observational PAS dose finding. Do not treat as a net savings estimate.
Net of PCS/PAS cost	Net = avoided stays x local cost/stay - incremental PCS/PAS hours x hourly rate.	At $15.67/hour from the PCS cost model [7], each added 1 hour/day for 1,000 users costs about $5.72M/year; hospital savings alone fund about 0.26-0.48 added hours/day.	Use state/program rates and actual incremental hours before claiming net savings.
ED/no-care comparator	Unmet need: 52% ED use vs 34% when needs are met [6]; up to 180 fewer ED visits per 1,000/year.	$530 all-ages ED cost and $690 age 65+ ED cost imply about $95k-$124k gross value per 1,000/year [60].	Useful for no/inadequate-care framing; ED savings alone are modest relative to PCS hours.
PCS nursing home model	Increasing PCS hours to the median was modeled to reduce nursing home placement [7].	Study-specific estimate: $155,088/month or nearly $1.9M/year in savings; uses $15.67/hour PCS, $960 waiver cost, and $3,500 monthly nursing home cost [7].	Older/single-state cost inputs. Use as PCS-specific proof of concept, not universal savings.
Reporting rule	Use direct dollars when the study reports costs; use formulas/ranges when it reports utilization only.	Direct cost sources include [7], [18], [38], [46]–[51], [54].	Avoid forcing $ translation where event cost, avoided duration, or service cost is missing.

Planning use: replace C_h, PCS hourly rate, and incremental hours with state- or program-specific values before claiming net savings.

Outcome 2: Emergency Department Visits

PCS/PAS-specific interpretation: The ED evidence should mostly remain HCBS-wide. The unmet-need finding supports a no/inadequate formal care comparator, but it does not isolate PCS/PAS. The report therefore translates the ED-use gap as a gross value scenario, not as PCS/PAS net savings [6].

WHY THIS MATTERS

Emergency department use is highly sensitive to unmet need. Ensuring people get the right amount of support at home can significantly reduce avoidable ER visits, making adequacy and timeliness of services central to system performance.

Unmet needs in home care are a major driver of emergency room use. Individuals who lack sufficient help at home often end up relying on the ED to address issues that could have been managed earlier with proper support. A large national survey found that about 52% of people with unmet personal care needs had visited an ED in the past year, compared to just 34% of those whose needs were fully met [6]. This 18 percentage-point gap suggests that improving the adequacy of HCBS could prevent many emergency visits. The report therefore treats the ED-specific evidence as strongest for unmet need and inadequate formal support; consumer-directed personal care evidence is strongest for related hospitalization, falls, and functional outcomes [5], [27]. (Exhibit 2) One study found that greater aide continuity did not significantly change ED visit rates, indicating that timely access to needed care may be more directly tied to emergency episodes than caregiver continuity alone [9].

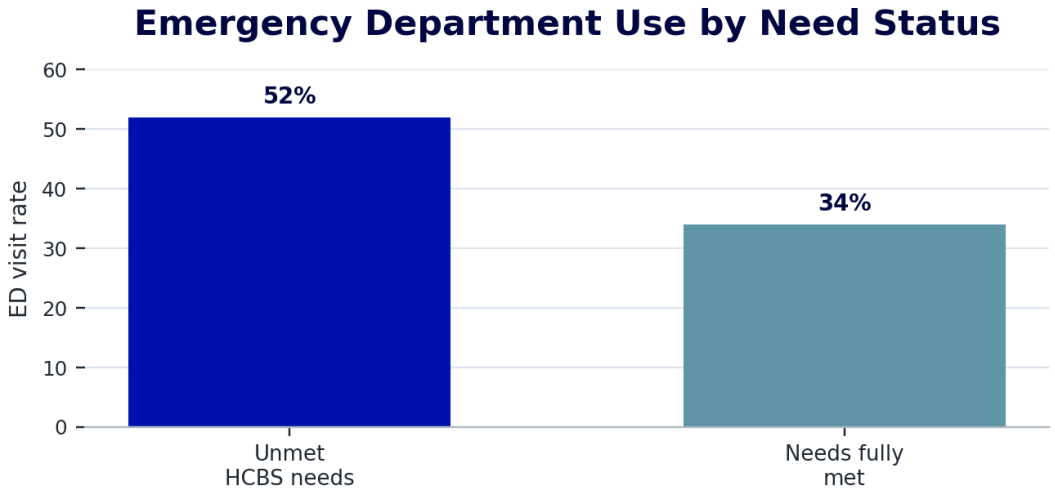


Exhibit 2. Unmet HCBS needs are associated with higher ED use. Source: Appendix A, citation [6]

In summary, ensuring sufficient and timely home care – especially through addressing unmet needs and giving individuals more control – can markedly lower avoidable trips to the emergency room.

Cost-effectiveness lens: ED savings are most persuasive in the comparison to no or inadequate formal care: people with unmet HCBS needs have substantially higher ED use than those whose needs are met (52% vs 34%) [6]. Because ED visits are a costly substitute for timely in-home help, adequately meeting home-care needs is a plausible cost offset even when direct per-person cost comparisons are limited. Consumer-directed models strengthen the broader acute-utilization case by showing lower hospitalization in personal care studies, but the ED-specific evidence in this report remains the unmet-need comparison [5], [27].

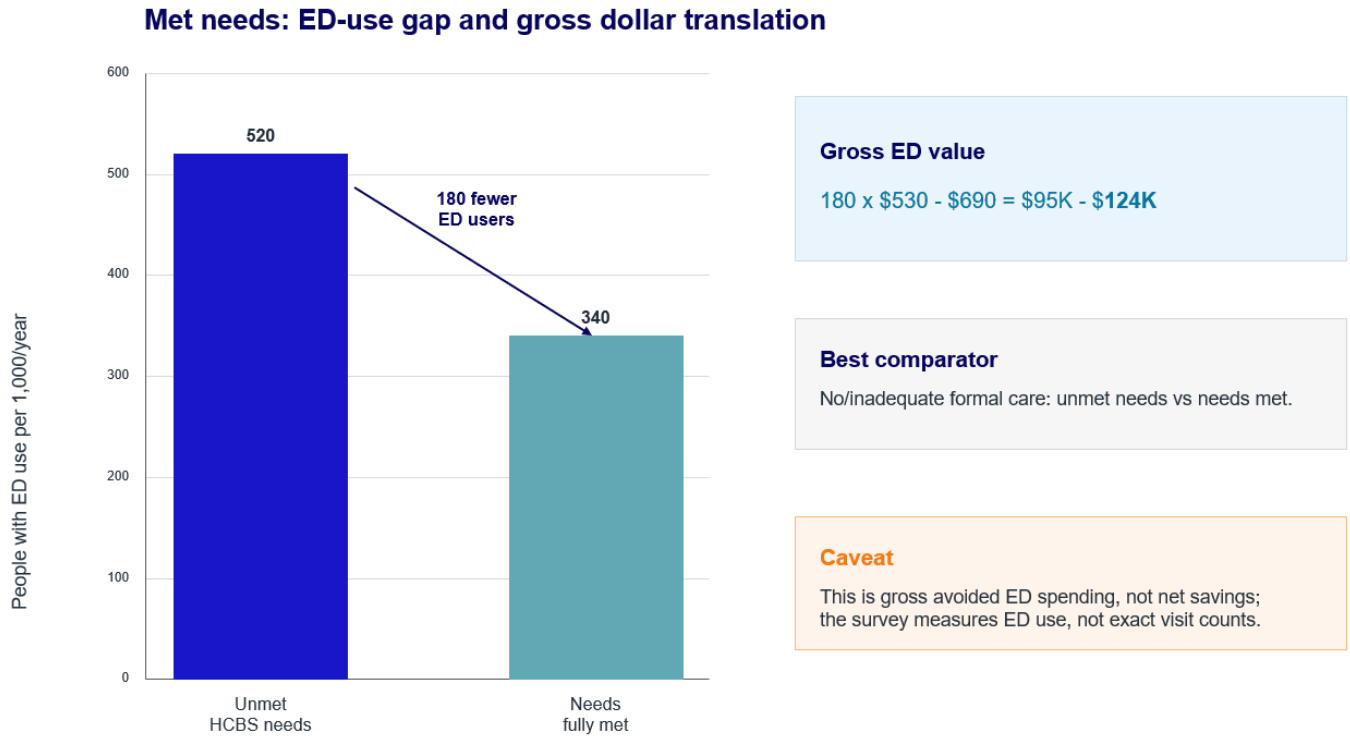


Exhibit 2A. Dollar translation of the ED-use gap between unmet HCBS needs and fully met needs. Source: Appendix A citations [6], [60].

Outcome 3: Nursing Home Placement and Institutionalization

PCS/PAS-specific interpretation: This outcome has several PCS/PAS-specific anchors. Personal care hours were associated with lower nursing home placement in the PCS study [7], each additional five hours/month of attendant care was associated with lower nursing-home placement hazard in the Indiana waiver analysis [8], and consumer-directed personal care reduced long-stay nursing home admission in Cash & Counseling [5]. These findings support describing PCS/PAS intensity and flexibility as institutional-diversion mechanisms, while broader HCBS cost studies remain HCBS-level.

WHY THIS MATTERS

Delaying or preventing nursing home placement is a major cost and quality driver in LTSS. HCBS—particularly when introduced early, delivered at adequate levels, and paired with consumer direction—can meaningfully extend community living and reduce long-term reliance on institutional care.

There is strong evidence that robust HCBS can help older adults and people with disabilities avoid or significantly delay moving to nursing homes. Key findings include:

Service Intensity ("Dose") Matters: Even modest increases in home care can make a difference. For example, one study found that adding just 5 extra hours of attendant care per month was associated with a ~5% reduction in the risk of nursing home placement (hazard ratio ~0.95) [8]. In another analysis,

individuals receiving above-median hours of personal care had about a 25% chance of entering a nursing home, compared to a 36% chance among those receiving below-median hours [7]. (Exhibit 3)

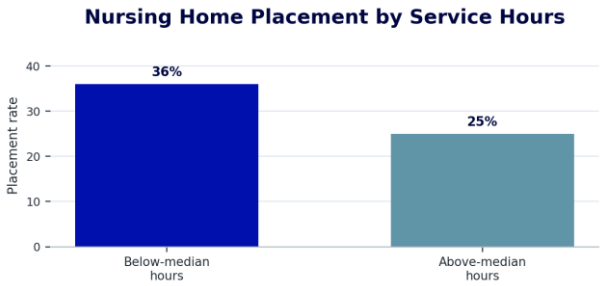


Exhibit 3. Service intensity and nursing home placement.

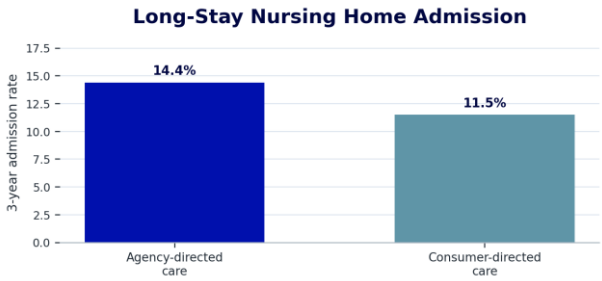


Exhibit 4. Consumer direction and long-stay nursing home admission.

Sources: Appendix A, citations [7] and [5].

Early Use of Services Delays Institutionalization: Starting in-home services before a crisis or advanced decline can significantly prolong community living. For example, one program evaluation found that older adults who began receiving home health care earlier in the course of their disability stayed at home roughly 8 months longer before requiring nursing home care, compared to those who delayed service use [29].

Consumer Direction & Family Caregivers: Self-directed care models – which often allow hiring family members as paid caregivers – have demonstrated reductions in long-term nursing home use. The Cash & Counseling controlled trial observed a lower three-year long-stay nursing home admission rate for consumer-directed personal care participants than for agency-directed participants (11.5% vs. 14.4%, about an 18% relative reduction) [5]. (Exhibit 4) A key factor is that paid family caregivers in these models help ensure more needs are met consistently, which supports aging in place. Consumer-directed participants also report greater control, satisfaction, and fewer unmet needs than participants in agency-directed models, which may contribute to their ability to remain at home [31], [32], [33].

Transition Programs Sustain Community Living: People who do enter facilities can often return to the community successfully with transitional support. The federal Money Follows the Person (MFP) demonstration, which assists nursing home residents in moving back to home settings, achieved low rates of re-institutionalization: for example, only about 8% of MFP participants had moved back to a facility within one-year post-transition, indicating that the vast majority remained in the community [21]. This success underscores that even after a period in a nursing home, many individuals can thrive at home with proper supports in place.

Overall, evidence indicates that HCBS, especially when provided early, at sufficient intensity, and with flexible consumer control, can sharply reduce the likelihood of long-term nursing home use.

Cost-effectiveness lens: Nursing home diversion is the clearest HCBS cost-effectiveness pathway. Direct cost comparisons consistently find lower per-person costs for HCBS than institutional care: $2,919 higher monthly total health expenditures for California nursing facility initiators relative to HCBS initiators [38], $1,281 lower adjusted monthly Medicaid spending in Kansas HCBS [49], $1,688 lower monthly LTC expenditures in an Indiana dementia cohort [51], and $4,582 higher annual Medicaid LTC costs for Alabama nursing home residents [50]. These savings are strongest when HCBS reaches people at imminent risk of nursing home placement; delayed or absent support shortens community tenure and can lead to earlier facility entry [29], [30].

Nursing home diversion is the clearest HCBS cost-effectiveness pathway

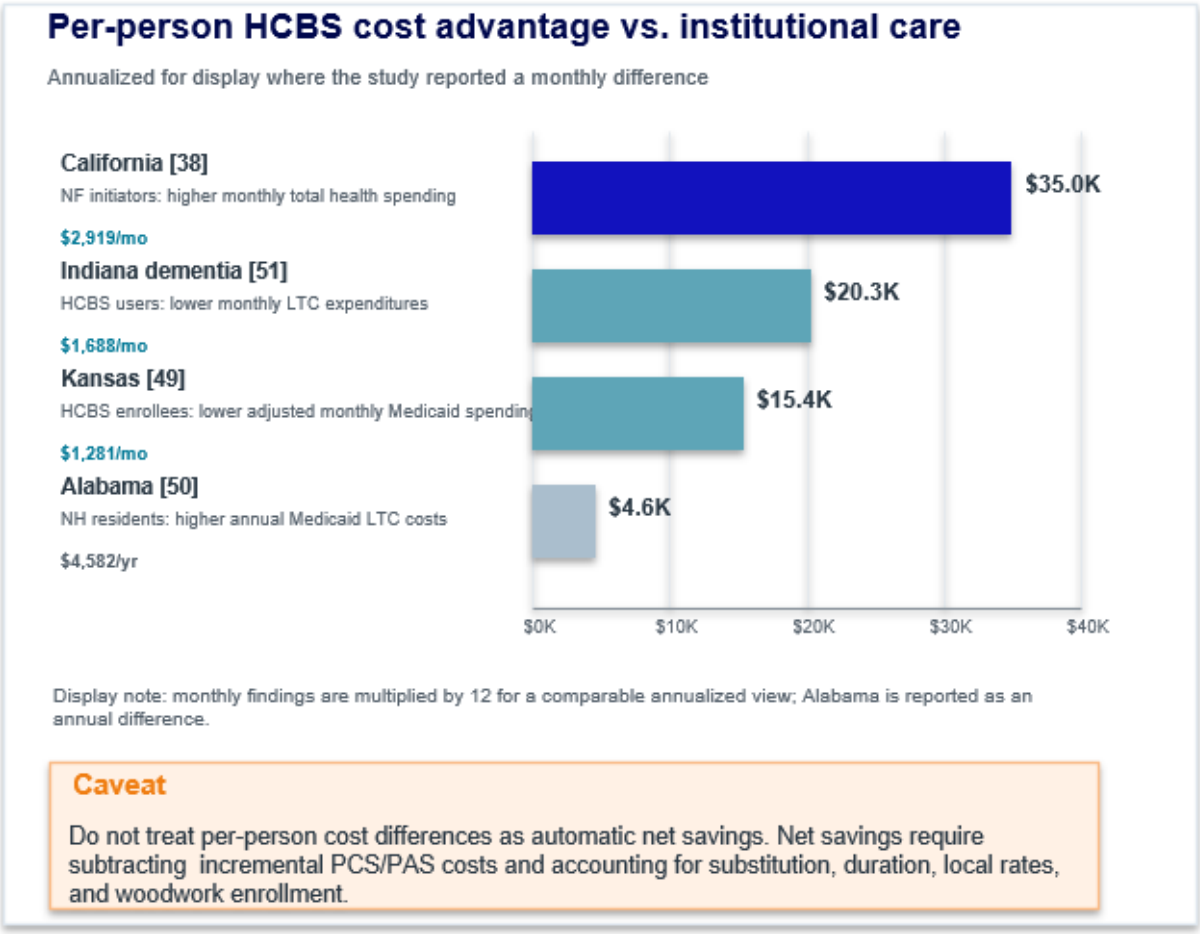


Exhibit 3A. Nursing-home diversion dollar-translation pathway. Source: Appendix A citations [7], [8], [38], [46]–[51].

Outcome 4: Functional Status and Daily Living Skills

PCS/PAS-specific interpretation: PCS/PAS narrowing is strongest for findings tied to care continuity and consumer direction. Home care worker continuity is PCS/PAS-adjacent because it reflects the stability of paid home care relationships [9], and consumer-directed Medicaid-funded personal care was associated with fewer falls and less functional decline in the New York study [27]. Aging in Place and IDD findings remain broader HCBS/community-support conclusions.

WHY THIS MATTERS

For LTSS populations, maintaining independence is often a more relevant outcome than improvement alone. HCBS can help stabilize functioning and slow decline, supporting quality of life and potentially reducing the need for higher-cost care settings.

Evidence on functional status outcomes, typically measured by changes in Activities of Daily Living (ADLs) and Instrumental ADLs, is more limited than evidence for utilization or institutionalization, but it provides important insight into how HCBS affects day-to-day independence. Overall, findings indicate that HCBS can influence functional trajectories in meaningful ways, with different patterns by population: among aging and frail LTSS populations, effects are most often observed as stabilization or slower decline, while among people with IDD, particularly those in community transition or developmental contexts, the literature more often documents the potential for functional improvement. The sections below summarize these patterns separately to reflect both the evidence base and the policy implications.

A. Aging and LTSS populations: stabilization and slowed decline

For older adults (often with frailty, dementia, or other LTSS needs), HCBS helps maintain functional abilities and slows decline – a critical outcome given improvement is rarely expected in this group. Key findings include:

Slower Functional Decline vs. Institutional Care: HCBS recipients often decline more slowly than similar individuals in nursing facilities. For example, older adults in an Aging in Place HCBS program had better functional trajectories over time than matched nursing home residents [25]. Slower decline may stem from continued engagement in home routines and one-on-one support that focuses on maintaining capabilities.

Stabilization Rates: While only a minority show actual improvement, a significant portion of HCBS participants maintain their baseline ADL function over time, which itself is a positive outcome. One cohort analysis found 40% of HCBS recipients maintained baseline ADL abilities after 12 months, versus only 25% of similar individuals in institutions (indicating a 15-point advantage for HCBS) [25]. (Exhibit 5) Stabilization at this rate underscores how home care can extend the period of independence.

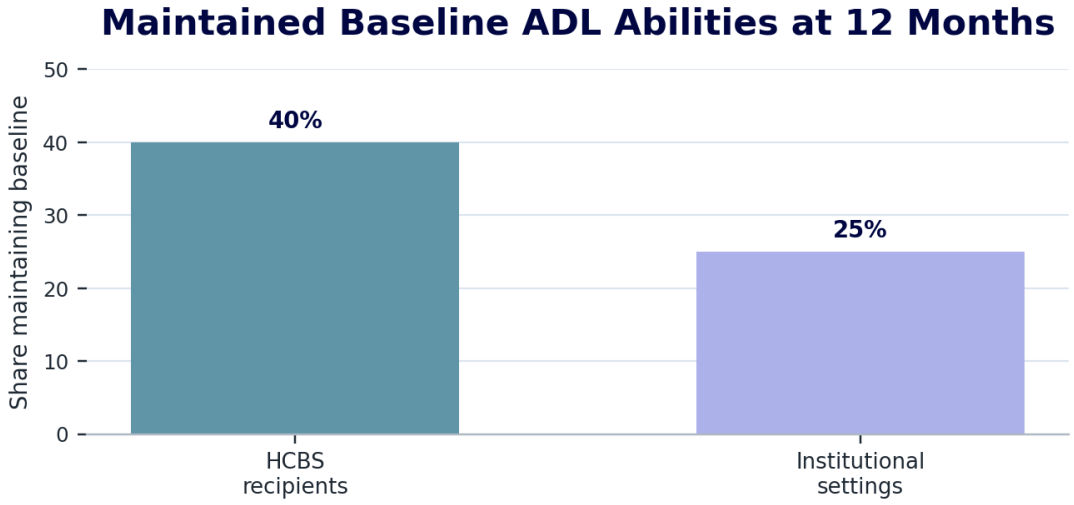


Exhibit 5. HCBS recipients are more likely to maintain baseline ADL abilities. Source: Appendix A, citation [25]

Consumer Direction Slows Decline: Access to consumer-directed care (where individuals hire and manage their aides, often including family) correlates with slower functional loss. One program saw less ADL decline for consumer-directed participants compared to those in traditional agency-managed services, likely reflecting greater flexibility and alignment of services with personal needs [27]. Over two years, the relative risk of functional decline was lower in consumer-directed models, emphasizing the protective effect of participant control on function.

Care Continuity Reduces Decline and Falls: Consistent caregivers (low aide turnover) are strongly linked with better functional outcomes. In one study, older home care clients who had a regular, long-term aide were less likely to experience functional decline and falls than peers with high caregiver turnover or frequent rotation [9]. The familiarity and trust built with a consistent aide likely encourage better adherence to care plans and proactive health monitoring. (Exhibit 6)

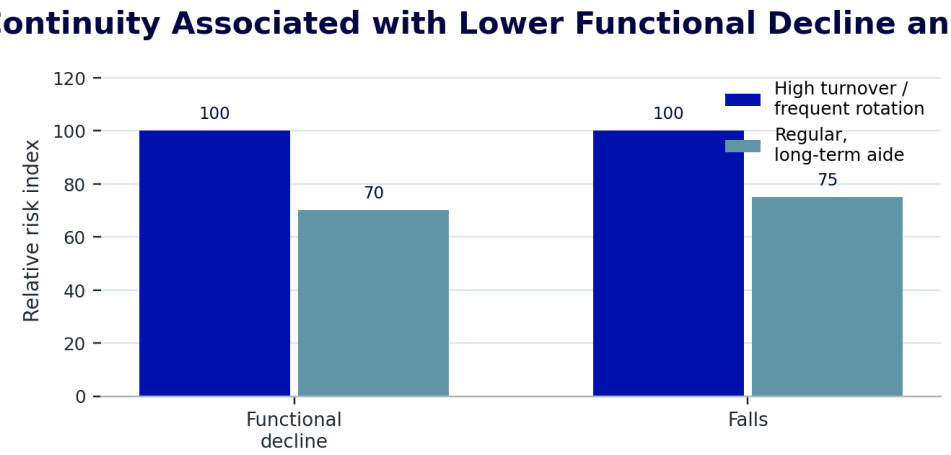


Exhibit 6. Consistent aide relationships are associated with lower risk of decline and falls. Source: Appendix A, citation [9]

These findings suggest that while gains in physical function are rare in aging LTSS populations, HCBS can lengthen the plateau of independence. High-quality services – especially those marked by continuity and consumer direction – help people retain daily living skills and reduce adverse outcomes (like falls).

B. People with IDD across the lifespan: opportunities for improvement

In contrast, the evidence for individuals with Intellectual and Developmental Disabilities (IDD) presents a more optimistic picture for functional improvement, particularly when community-based supports are introduced or enhanced. This difference likely reflects that many people with IDD (including younger individuals) have developmental potential that can be better realized in enriched settings, whereas older adults are typically facing degenerative conditions. Key points include:

Functional Gains Post-Institutional Transition: Multiple studies have documented measurable improvements in daily living skills when individuals with IDD transition from institutional settings to community-based living with appropriate supports. A comprehensive review of U.S. deinstitutionalization studies found that over half of relevant longitudinal analyses reported significant gains in adaptive behavior (improved daily functioning) after moving to the community. [42]. Similarly, participants in transition programs often show progress in independence, decision-making, and life skills that were not achieved in institutional care.

Developmental Growth in Early Adulthood: For younger IDD populations, skill acquisition is particularly possible. Smith et al. followed nearly 400 youth and young adults with autism over a decade and observed that daily living skills improved throughout adolescence into early adulthood, before plateauing

in later years. [45] This suggests that with supportive services, IDD individuals can gain functional skills well beyond childhood, unlike aging populations where the focus is on preserving existing function.

Consumer Direction and Personalization: IDD services that emphasize personalization and consistency mirror some of the same benefits seen with aging groups. For example, continuity of Direct Support Professionals (DSPs) is often cited as crucial in IDD care. Individuals with stable caregiver relationships may achieve better skill development. Lifshitz et al. found that simply being in a certain residence type (group home vs. family home) did not by itself guarantee better ADL outcomes in adults with IDD; factors like age, health, and tailored support significantly moderated functional progress. [43] This implies that individualized, consistent support is key to unlocking functional gains for this population.

Recognizing Limits and Gaps: Some research focuses on the risk of decline in older adults with IDD. For example, Oppewal et al. tracked 600+ aging individuals with intellectual disabilities for 3 years, finding over half experienced ADL decline (and ~1/3 declined in mobility). [44] (Exhibit 7) This underscores that older people with IDD face similar challenges to other aging adults, stressing the importance of fitness and tailored supports to mitigate decline. However, even in such cases, strategic HCBS might help at least slow decline or maintain function longer relative to what would occur without support.

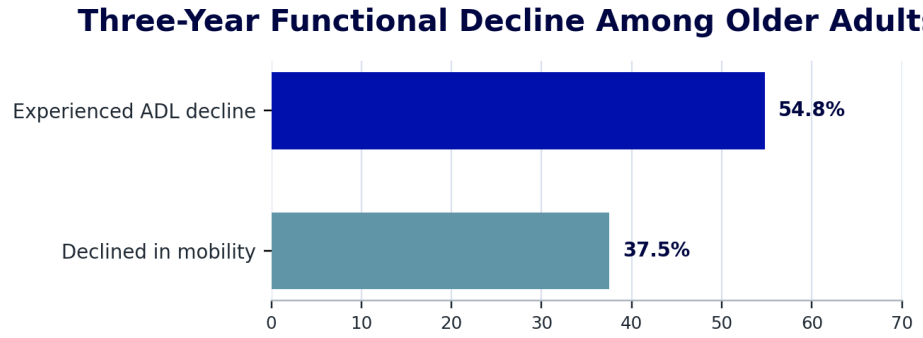


Exhibit 7. Functional decline is common among older adults with IDD, highlighting prevention needs. Source: Appendix A, citation [44]

Importantly, the evidence base is more extensive for older adult and LTSS populations than for IDD-specific outcomes, which means findings for IDD should be interpreted with appropriate caution. Nonetheless, enough IDD-focused research exists to support the contrast drawn above: HCBS often preserves function in aging populations, while it can foster function gains in many IDD cases, illustrating the flexibility and breadth of HCBS benefits across diverse groups.

Cost-effectiveness lens: Functional status has a delayed but important cost mechanism. Maintaining ADL capacity, reducing falls, and slowing decline can postpone more intensive services and institutional care. The Aging in Place evidence is especially relevant because better functional trajectories coincided with lower total Medicare and Medicaid costs than nursing home care [25], [46]. Compared with no or inconsistent support, HCBS continuity and adequate service intensity can help prevent avoidable decline and falls, which are common triggers for hospital use or institutionalization [9], [44].

Outcome 5: Quality of Life and Satisfaction

WHY THIS MATTERS

HCBS delivers its greatest value in areas traditional metrics often miss: autonomy, dignity, and life satisfaction. These outcomes are central to person-centered care and align strongly with beneficiary preferences and federal policy direction.

The quality of life of individuals receiving home-based LTSS often improves in subjective ways, even when objective health status doesn't change. Research consistently finds that people in HCBS, especially those who switch from institutional settings or have more control over their care, report higher satisfaction and better overall well-being. In fact, after transitioning from nursing facilities to community living, participants commonly report dramatic improvements in life satisfaction. To illustrate, in one multi-state survey, satisfaction with living arrangements jumped from roughly 62% "satisfied" while in a nursing home to 92% after one year at home [10]. (Exhibit 8) Similarly, across various programs, those in self-directed HCBS (who manage their own services) typically express greater happiness with their care and daily life compared to those in traditional agency-based programs. They benefit from a sense of autonomy and personalized support, often reporting fewer unmet needs and a feeling of greater dignity.

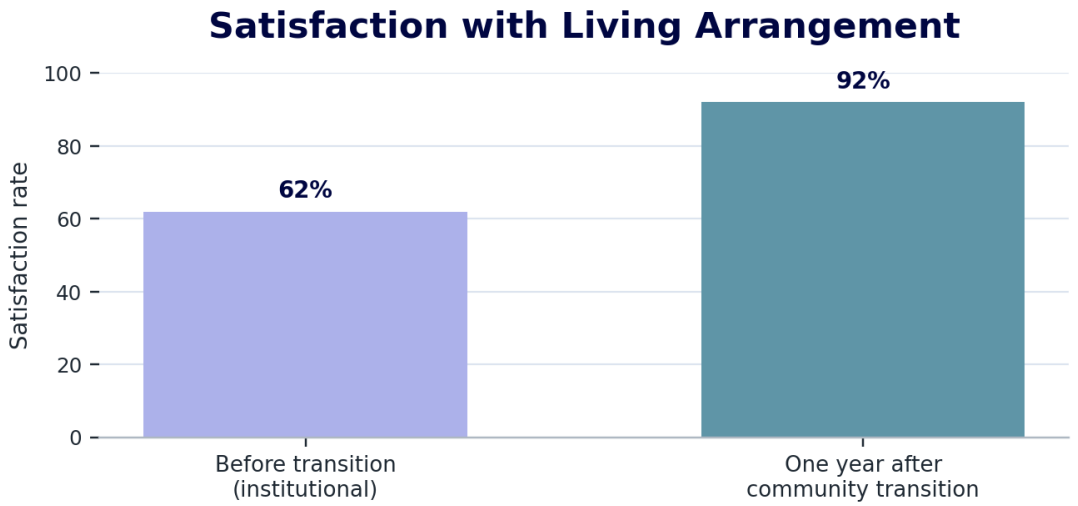


Exhibit 8. Living-arrangement satisfaction rises substantially after community transition. Source: Appendix A, citation [10]

At the same time, it's noteworthy that validated QoL instruments (standardized health surveys) do not always capture these differences. For example, one study found no significant difference in health-related quality of life scores (like EQ-5D or ASCOT scales) between older adults in consumer-directed versus traditional services [12]. This suggests that while the experience of care is better, people feel happier and more independent, their measurable health status may not change dramatically in the short term. The takeaway is that home-based care improves quality of life primarily in terms of satisfaction, dignity, and personal freedom. These are important outcomes, even if they don't always register on clinical scales.

Cost-effectiveness lens: Quality-of-life evidence reinforces HCBS value even when standardized clinical measures do not shift. Community transition and self-direction offer higher satisfaction and autonomy while generally operating at lower per-person cost than institutional replacement care [10], [31], [32], [47], [48]. Because no-care comparisons are rare, the cost case is best framed as high-value, preference-

concordant care: HCBS can deliver the living arrangement people prefer while avoiding or delaying a more expensive institutional setting.

Outcome 6: Caregiver Outcomes

WHY THIS MATTERS

Family caregivers are the backbone of the LTSS system. HCBS, especially meaningful respite, prevents caregiver burnout, sustains informal care networks, and avoids costly system failures such as hospitalizations or institutionalization.

Family caregivers often experience meaningful benefits when robust home-based services are in place for their loved ones. Key points include:

Reduced Burden with HCBS/Respite Support: The strongest caregiver evidence in this report comes from adult day services and meaningful respite. Adult day services are associated with lower daily care-related stress and better mood on service days, and earlier use of in-home or adult day services in dementia caregiving is associated with delayed nursing home placement [30], [34], [35], [41].

By supplementing family care with paid help and respite, HCBS can relieve stress and help caregivers continue providing support [34], [35], [41].

Respite's Effect Depends on Dose: Respite services can improve caregiver outcomes, but only if they are robust enough. Adult Day Services (ADS) have the clearest evidence of benefit – caregivers often describe lower stress and better mood on days their loved ones attend ADS, and long-term studies link earlier in-home or adult day service use to delayed nursing home placement for care recipients [30], [34], [35]. In-home respite (bringing a substitute caregiver into the home) can also help, but research shows small amounts (e.g., a few hours per week) usually aren't enough to yield measurable relief. A Cochrane review of respite RCTs found no significant benefits on caregiver variables, likely reflecting limited and heterogeneous trial evidence rather than proof that respite cannot help [20]. To truly reduce caregiver strain, studies suggest respite must be sufficiently intense – e.g., multi-day breaks or substantial weekly relief – to allow caregivers meaningful rest. In other words, respite works best when it is meaningful in dose and design; token amounts show little effect. (Exhibit 9)

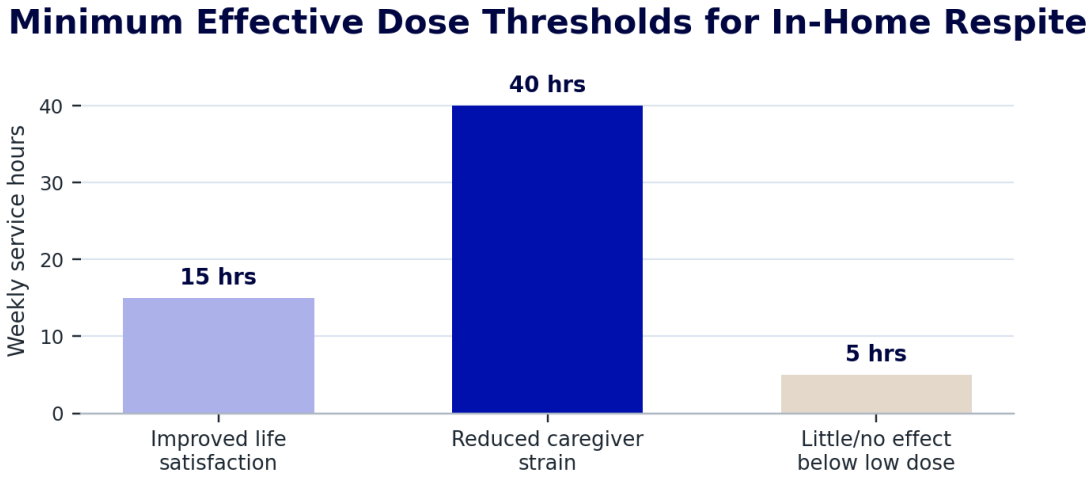


Exhibit 9. In-home respite appears dose-sensitive; low-dose respite is often insufficient. Source: Appendix A, citations [34]–[37], [41]

Low Utilization & Unmet Needs: Despite these potential benefits, respite remains underused. Barriers such as financial constraints, limited awareness, caregiver reluctance, and service availability often prevent families from using adult day or respite services [36]. This is concerning because unmet respite needs are associated with worse outcomes for both caregiver and care recipient – for instance, caregivers without breaks are more prone to burnout, and their loved ones may experience higher rates of hospitalization or emergency care [34], [41]. In summary, supporting family caregivers through substantive respite and other HCBS improves their ability to continue providing care, which in turn can help delay nursing home placement [30], [34]–[37], [41].

Cost-effectiveness lens: Caregiver supports are cost-effective when they help sustain the unpaid care network that makes community living possible. Adult day services and meaningful respite can reduce daily stress and delay nursing home placement, but low-dose respite is unlikely to produce measurable cost or burden reductions [20], [34]–[37], [41]. Compared with no formal relief, inadequate respite raises the risk of caregiver burnout, unmet needs, and crisis-driven hospital or nursing home use; therefore the evidence supports adequately dosed respite rather than token service levels [6], [34], [41].

System-Level Outcomes and Program Factors

PCS/PAS-specific interpretation: PCS/PAS-specific economic evidence is strongest where the study explicitly examines personal care, personal assistance, or PCA labor. These include PCA wage/access findings [14], PAS-related Medicaid payment changes [18], and PCS hours/nursing home placement modeling [7]. The larger HCBS-versus-institutional dollar estimates [38], [46]–[51] remain important, but they should be framed as setting-level or bundled-HCBS cost comparisons rather than PCS-only savings.

WHY THIS MATTERS

Program design determines whether HCBS delivers value at scale. Decisions about workforce investment, managed care structure, access, and service intensity directly affect outcomes, costs, and the balance between community and institutional care.

Beyond individual outcomes, the research highlights several system-level effects and program design factors that influence the success and cost-effectiveness of HCBS:

Cost-Effectiveness Headline: The strongest economic signal is per-person cost advantage, with a balanced woodwork counterargument. Across national and state studies, HCBS generally costs less than institutional care when it substitutes for nursing facility or comparable institutional services. Recent woodwork-specific evidence did not find increased Medicaid enrollment among adults ages 65+ in aggressive HCBS expansion states; however, it did show partial offsets rather than automatic net budget savings. The headline conclusion should therefore be: HCBS is lower-cost per person than institutional care, and aggregate savings depend on substitution, targeting, pace, and service intensity [38], [47]–[54].

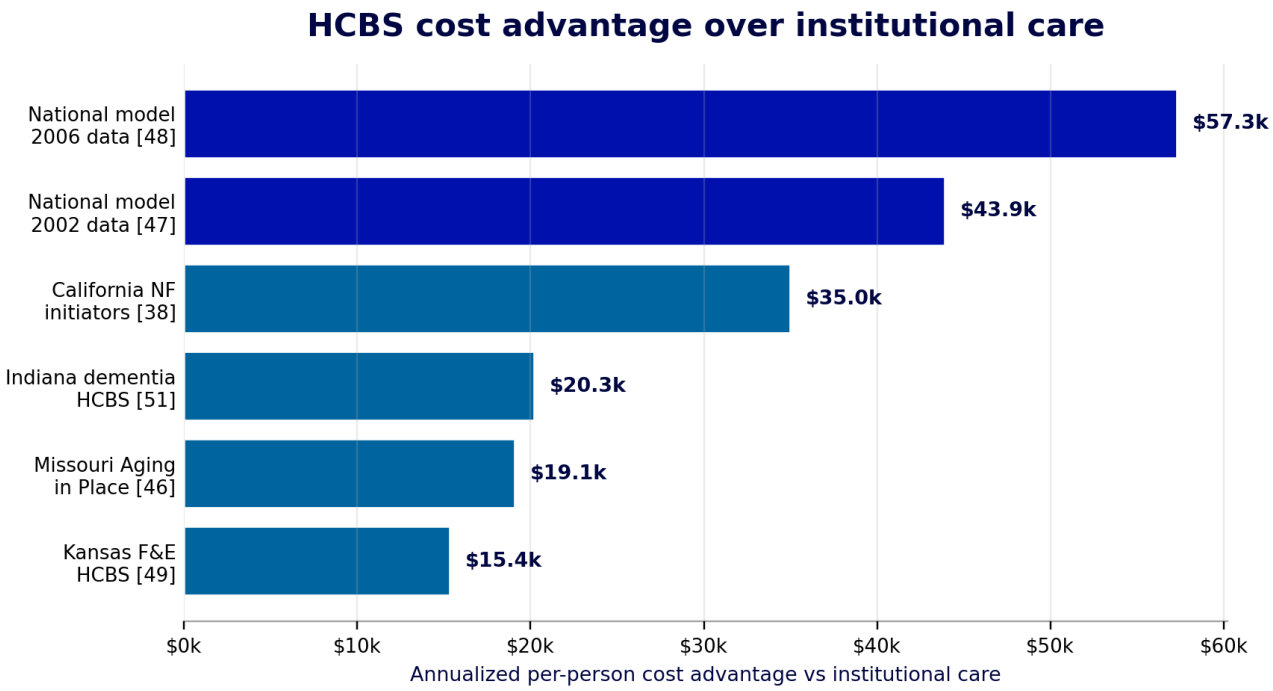
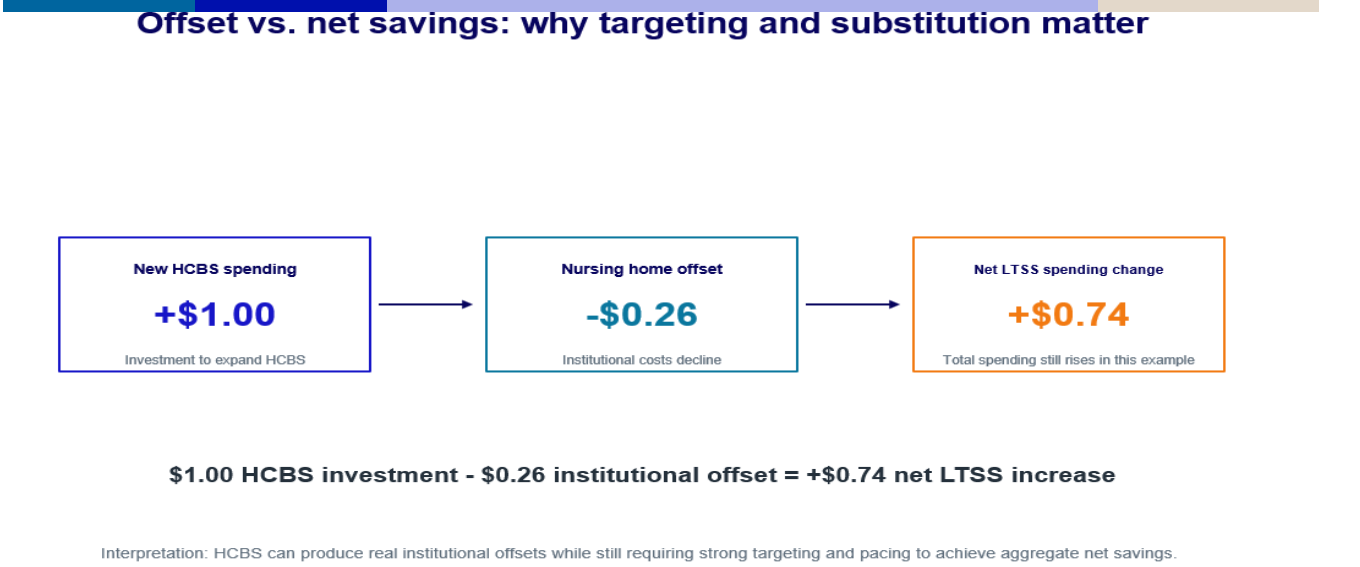


Exhibit 10A. HCBS cost advantage versus institutional care, annualized where monthly data were reported. Source: Appendix A, citations [38], [46]–[51].

Note: Annualized monthly estimates are for visual comparability only and should not be averaged because studies differ by year, population, payer scope, and methodology.

Outcome-linked cost mechanisms: HCBS cost-effectiveness is most evident when it prevents or delays nursing home placement, reduces avoidable ED/hospital use, maintains functional independence, and sustains family caregiving. Alabama data reinforce the setting-specific nature of savings: acute care costs were statistically similar for nursing home and home health groups, but Medicaid LTC costs were $4,582 higher for nursing home residents [50]. This suggests that even when acute care use is not lower, HCBS can remain lower-cost because institutional LTSS is expensive.

Exhibit 10B. Offset versus net savings bridge. Source: Appendix A citation [54] and Appendix B.



Implication for interpretation: The baseline should avoid blanket claims that HCBS expansion always saves total Medicaid dollars. The more defensible conclusion is that HCBS is usually cost-effective per person relative to institutional care and can generate net savings when it substitutes for institutional care or avoids high-cost acute/institutional events.

Managed Care vs. Fee-for-Service: Many states have implemented Managed Long-Term Services and Supports (MLTSS) programs, where managed care organizations coordinate and pay for LTSS. The evidence indicates MLTSS often improves beneficiaries' experiences (e.g., satisfaction, perceived access to care) compared to traditional fee-for-service LTSS [11], [12]. (Exhibit 10) However, its impact on utilization and costs is mixed. Some MLTSS programs achieved lower hospitalization or nursing home utilization rates in certain states, but others showed no clear improvement [12], [19], [23]. Recent evidence also found that MLTSS increased the share of older adults using home care but reduced monthly formal care hours among home care users by about 27% [65]. (Exhibit 11) This suggests a need for oversight to ensure managed care's cost-containment strategies don't inadvertently under-serve individuals, as service intensity is crucial for outcomes. The majority of Medicaid HCBS beneficiaries are dually enrolled in Medicare, creating a structural fiscal misalignment in which the state-funded service (Medicaid HCBS) generates savings for the federal payer (Medicare). The evidence on these "spillover" effects is substantive but heterogeneous. The primary mechanism for spillovers is the reduction of Medicare-funded acute care (hospitalizations, ED visits) and post-acute care (skilled nursing facility stays).

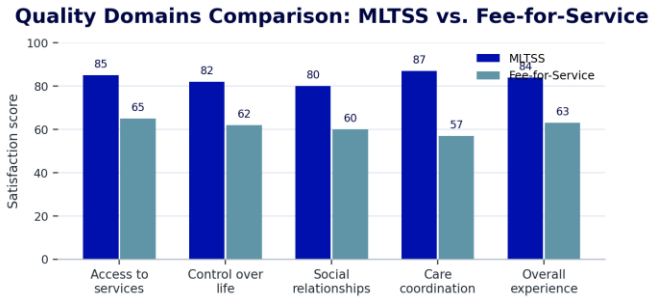


Exhibit 10. Reported quality-domain comparison.



Exhibit 11. MLTSS intensity dilution concerns.

Sources: Appendix A, citations [11], [12], [19], [23], [65].

Several studies using linked Medicare-Medicaid claims quantify these effects. A Washington State analysis estimated that for every $1,000 spent on Medicaid-paid in-home LTSS after a hospitalization, Medicare expenditures are reduced by $208 for older adults and $254 for adults with disabilities, representing a partial offset of 21–25%. The Massachusetts PAS study also captured these cross-payer savings, showing a 50% reduction in hospital payments for users, which benefits both programs for dual eligibles [18]. An Illinois managed care study found reduced ED use and reduced inpatient admissions among older enrollees with early-acquired physical disabilities, a portion of which may represent Medicare savings for dual eligibles [64].

However, the effect is not always positive. Evaluations of integrated care models under the Financial Alignment Initiative and related integrated care programs have shown mixed results, with a recent systematic review finding variable effects on hospitalizations and several Medicare-Medicaid Plan evaluations showing higher Medicare spending [66].

This heterogeneity underscores that the impact on Medicare spending is highly dependent on program design and the population served. Awareness of HCBS fiscal implications in dual programs is in early stages despite programs that are targeted to integrate Medicaid (medical, behavioral and LTSS coverage) and Medicare having increased adoption. Policy experts and analysis have been more focused on medical cost shifting than taking into consideration any sort of structural disincentive for states to invest in HCBS beyond what saves Medicaid dollars.

Federal policy levers, such as continued evolution of capitated dual-eligible plans (D-SNPs) and PACE programs, are the primary mechanisms designed to fully integrate Medicaid, Medicare, and HCBS benefits, encouraging a greater likelihood of community-based care. A key evidence gap is that no study in the current base isolates Medicare-specific spending impacts related to Medicaid HCBS utilization as a primary outcome.

Workforce and Access Considerations: The availability and quality of the direct care workforce and related supports (like FMS) greatly influence HCBS success. When states have invested in higher wages for personal care workers, they have seen increased uptake of HCBS and reduced reliance on nursing homes, indicating that better pay helps recruit and retain staff to meet demand [14]. Aide training and career support are also likely to contribute to higher quality care and lower turnover, although more research is needed on specific strategies. Aide continuity, having the same caregiver over time, is a proxy measure for workforce stability and has been tied to better functional outcomes for clients [9]. On the access side, persistent waiting lists and unmet need remain an issue in many states (depending on waiver caps and budgets), leaving potential participants without services until a slot opens. Evidence shows that unmet HCBS needs correlate with higher emergency use [6], so policies that restrict access (via waiting lists or strict needs thresholds) can inadvertently lead to greater acute care costs.

Federal Program Comparators: Outcome patterns in veteran-focused HCBS programs mirror many Medicaid findings. The VA's Veteran-Directed Care/VD-HCBS model gives participants a budget to arrange their own home care and has been described by participants as supporting dignity, choice, safety, and the ability to remain at home [62]. PACE, a joint Medicare-Medicaid integrated model, has a record of lower hospitalization and nursing home use in several evaluations, although evidence quality varies across studies [61]. The VA's Home-Based Primary Care (HBPC) program – a comprehensive in-home medical care model – has demonstrated major reductions in hospital days and overall costs for participating veterans [63]. These programs strengthen the evidence that empowering patients and

investing in home-based support can achieve outcomes on par with or better than institutional care when programs include adequate clinical and administrative infrastructure.

Evidence Gaps and Limitations

WHY THIS MATTERS

Understanding evidence gaps is important for informed policy and program design. More targeted evaluation, particularly related to respite and service-specific effects, could strengthen future decision-making and reduce uncertainty.

Despite an expanding evidence base, important gaps remain:

Causality Challenges: Because so many findings come from observational studies, it's hard to conclusively prove cause-and-effect. People who choose HCBS often differ from those who don't (or from nursing home residents), which can bias results even with statistical adjustments. Few randomized trials exist, so we must interpret results as associations rather than guaranteed outcomes.

Generalizability: Many studies focus on a single state or program, so findings are not always generalizable nationwide. An outcome strongly evident in one state's model might not replicate elsewhere due to different policies, demographics, or service environments.

Service-Specific Impacts: There is a lack of research isolating the effects of specific services. Most studies examine "HCBS" bundles or broad program changes, making it unclear how much each component (personal care vs. homemaker vs. respite, etc.) contributes to outcomes. For example, homemaker services are rarely studied on their own, leaving their unique impact on things like caregiver stress or independent living an open question.

Long-Term Outcomes: We have limited insight into the longer-term outcomes (beyond 1–3 years) of receiving these home-based services. More longitudinal research is needed to understand how HCBS affects trajectories of health and function over many years, as well as how sustained the benefits (or cost offsets) are over the long run.

Recognizing these gaps can help target future evaluations, such as more rigorous studies on respite care, or analyses that disentangle which specific HCBS elements drive positive outcomes.

Implications for Policy and Practice

WHY THIS MATTERS

The evidence consistently highlights a small number of high-impact levers—service intensity, early intervention, workforce stability, and consumer direction—that appear most strongly associated with better outcomes and are therefore important considerations for policy and program design.

Although this report does not make policy recommendations, the evidence points to several implications for program design and best practices in home-based LTSS:

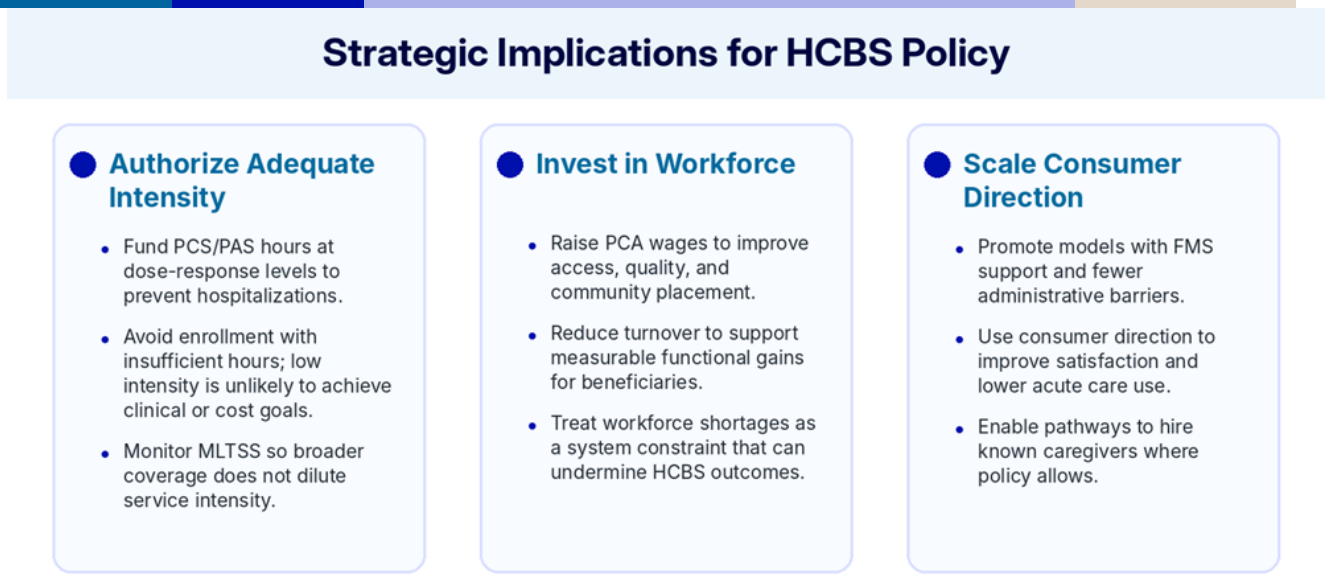


Exhibit 12. Strategic implications for HCBS policy and program design. Source: Synthesized from outcome findings

Authorize Sufficient Service Intensity: Providing enough hours of care is critical. A consistent finding is that a few hours a week may not be enough to improve outcomes, whereas higher "doses" of personal care or respite do yield benefits. This suggests programs should ensure participants get robust levels of service aligned with their needs – skimping on hours can result in higher downstream costs (via hospitalizations or earlier nursing home entry).

Intervene Early to Prevent Crises: The evidence highlights the value of timely access to HCBS. Enabling people to receive services before health and caregiving situations deteriorate can prevent avoidable emergencies and delay institutionalization. This has programmatic implications: screening and referral processes should aim to identify high-need individuals early and minimize wait times (as opposed to waiting until a crisis forces higher-cost care).

Invest in Workforce Stability: Quality of care is linked to the quality and stability of the workforce. High turnover and staffing shortages diminish outcomes; conversely, better pay, training, and career advancement for direct care workers can promote retention and continuity of care. Strengthening the workforce (through wage initiatives, training programs, and career ladders) not only benefits workers but can improve client health and satisfaction and possibly reduce reliance on institutional settings.

Empower Consumers with Support: The success of self-directed models demonstrates that many individuals and families can manage or meaningfully direct their own care when the right administrative supports are in place. In Full Self-Direction, strong FMS support helps participants or representatives manage employer responsibilities such as payroll, taxes, and worker-related paperwork. In Hybrid Self-Direction or Agency with Choice, the agency carries many employer-of-record responsibilities while the participant retains meaningful choice over who provides support and how daily services are delivered. Streamlining enrollment and strengthening these supports can reduce barriers, expand access to known and trusted caregivers, and enhance satisfaction without treating FMS as the only administrative model for self-direction.

Address Equity and Access Gaps: Persistent disparities in access and outcomes (for example, by race/ethnicity or geography) mean programs must tailor approaches to reach underserved populations. Strategies could include targeted outreach, language and cultural competency efforts, and monitoring

outcomes by demographic groups. Closing these gaps is important not only for fairness but also for ensuring that the overall HCBS system works well for all who need it.

Big-Picture Value: Finally, consider the holistic value of HCBS. The updated cost-effectiveness evidence supports a measured claim: HCBS is usually lower-cost per person than institutional care and can create meaningful savings when it substitutes for nursing home placement or prevents avoidable acute and crisis utilization. Expanding HCBS may still increase total spending when newly served people were not on an immediate path to institutional care, so fiscal monitoring should focus on substitution, service adequacy, and whether institutional offsets keep pace with growth. In many cases, shifting resources toward home-based care aligns with consumer preferences and sustainable spending by reducing high-cost institutional stays, stabilizing function, and supporting family caregivers.

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16. Dillon E, Fortinsky RH, Barry L, et al. (2024) Potentially preventable hospitalizations in a Connecticut Medicaid home and community-based services population. Innovation in Aging.

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Appendix A: Citation Reference Table

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[1]	Van Cleve RV, Cole ES, Degenholtz HB (2023). Risk of hospitalization associated with different constellations of home & community-based services. BMC Geriatrics. https://doi.org/10.1186/s12877-022-03676-2	HCBS participants receiving Personal Assistance Services (PAS).	Hospitalization	Dose–response relationship: For HCBS participants receiving only personal assistance services (PAS), predicted quarterly hospitalization rates decreased as daily PAS hours increased: 13.9% for those with ≤4 hours/day, 10.2% for those with 4–8 hours/day, and 9.5% for those with >8 hours/day. This indicates that more intensive PAS use is associated with a lower risk of hospitalization (observational association, not a proven causal effect).	Higher-intensity personal assistance is associated with lower hospitalization rates, suggesting that service intensity may be an important factor in reducing acute care use among HCBS participants.	Observational PAS dose finding; not randomized. Adult day service subgroups showed different patterns, so do not generalize all HCBS as reducing hospitalization.	Moderate-High	Yes. Explicit PAS-hours analysis; strongest hospitalization narrowing to PAS.
[2]	Gorges RJ, Sanghavi P, Konetzka RT (2019). A national examination of long-term care setting, outcomes, and disparities among elderly dual eligibles. Health Affairs. https://doi.org/10.1377/hlthaff.2018.05409	Elderly dual-eligible beneficiaries receiving long-term services and supports in home- and community-based and nursing facility settings.	Hospitalization	HCBS vs. NF hospital use (adjusted): Using an instrumental variable approach to address selection, researchers found that among elderly dual-eligible beneficiaries, those receiving HCBS had annual hospitalization rates about 10–13 percentage points higher than comparable individuals in nursing homes (after adjusting for health differences). This difference likely reflects less clinical oversight or higher transfer rates in community settings rather than inherent harm from HCBS.	Compared with similar nursing home residents, HCBS participants had higher hospitalization rates in adjusted analyses, highlighting important care-setting differences and the need for careful interpretation of cross-setting comparisons.	Instrumental-variable setting comparison; nursing facilities can manage some acute events on-site, so higher HCBS hospitalization does not prove HCBS harm.	Moderate-High	No. Broad HCBS vs nursing facility setting.
[3]	Werner RM, Coe NB (2020). Outcomes of Medicaid home- and community-based long-term services and supports: a 12-state case study. Health Services Research. https://pmc.ncbi.nlm.nih.gov/articles/PMC7704475/	Older dual-eligible beneficiaries receiving Medicaid home- and community-based long-term services and supports.	Hospitalization	Racial disparities in HCBS hospitalizations: In an analysis of older, dually eligible HCBS participants (particularly those with dementia), Black HCBS users had higher hospitalization rates than White HCBS users. The disparity was especially pronounced among individuals living with dementia, highlighting inequities in outcomes within HCBS populations.	The study highlights outcome disparities within HCBS populations, suggesting a need for closer attention to equity, care coordination, and differences in support needs across subgroups.	Equity/disparity analysis within HCBS populations; not a service-intensity or cost-effectiveness study.	Moderate	No. Broad HCBS participants.
[4]	Wysocki A, Kane RL, Golberstein E, et al. (2014). The association between long-term care setting and potentially preventable hospitalizations among older dual eligibles. Health Services Research. https://doi.org/10.1111/1475-6773.12168	Older dual eligibles comparing HCBS vs nursing facility settings (as discussed in the evidence base).	Hospitalization	Preventable hospitalizations (HCBS vs NF): One study of older dual-eligibles found that HCBS participants had a modestly higher probability of potentially preventable hospitalization (PPH), about 1 percentage point higher, compared to similar individuals in nursing facilities. Although a small difference, this suggests that community settings may need improved clinical safety nets to match the preventive care of institutional settings.	The difference in potentially preventable hospitalizations is modest, but it highlights an opportunity to strengthen clinical supports in community settings, such as triage, urgent response, and medication management.	Potentially preventable hospitalization measure may reflect differences in clinical oversight and transfer thresholds across settings.	Moderate	No. Broad HCBS vs nursing facility.
[5]	Dale S, Brown RS (2006). Reducing nursing home use through consumer-directed personal care services: evidence from the Cash and Counseling demonstration. Medical Care. https://doi.org/10.1097/01.mlr.0000218849.32512.3f	Medicaid HCBS participants comparing consumer-directed vs agency-directed personal care.	Hospitalization; Nursing Home Admission/Institutionalization	Consumer-directed care (RCT findings): In a randomized trial (Cash & Counseling demonstration), consumer-directed personal care significantly reduced hospital and nursing home use. Specifically, 32 percentage points fewer consumer-directed participants had any inpatient hospital stay, and their long-term nursing home admission rate over three years was 11.5% vs 14.4% under agency-directed care (a 3.3 percentage point absolute reduction, ~18% relative decrease). These results from a rigorous study indicate that giving participants more control over personal care can yield better health and institutionalization outcomes.	Randomized trial evidence shows that giving people control over their services works—consumer-directed participants were 32 percentage points less likely to have a hospital stay and had lower nursing home use over three years (11.5% vs. 14.4%)—making self-direction a proven way to improve outcomes and reduce reliance on institutions while supporting people to live independently in the community.	RCT evidence from Cash & Counseling; program design and state implementation shape transferability. Cost impacts may vary by PCS budget levels.	High	Yes. Consumer-directed personal care services.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[6]	Chong N, Akobirshoev I, Caldwell J, et al. (2021). The relationship between unmet need for home and community-based services and health and community living outcomes. Disability and Health Journal. https://doi.org/10.1016/j.dhjo.2021.101222	HCBS users with vs without unmet need (as reported in the evidence base).	ED Use	Unmet need and ED use: Analysis of national survey data showed individuals with ≥1 unmet HCBS need had much higher emergency department (ED) use than those without unmet needs (52% vs 34% reporting an ED visit). This association suggests that unmet support needs in the community are linked to greater reliance on emergency care.	When HCBS needs are not fully met, ED use is higher (52% vs. 34%), suggesting that adequacy and timeliness of services are important factors in preventing emergency care use.	Survey-based unmet-need association; ED-use measure is not a claim-count of visits and does not isolate PCS alone.	Moderate	Partial. HCBS unmet need may include personal care, but not PCS-isolated.
[7]	Spoelstra SL, Given CW, Given BA, et al. (2014). How increasing personal care service use might delay or prevent nursing home placement. MOJ Public Health. https://doi.org/10.5348/P16-2014-2-OA-2	Waiver participants receiving above- vs below-median personal care hours (as described in the evidence base).	Nursing Home Admission/Institutionalization	Personal care hours and nursing home entry: Among Medicaid waiver participants, those receiving more intensive personal care services fared better in staying out of nursing homes. In one analysis, individuals who got above-median hours of personal care had about a 25% nursing home placement rate, versus 36% for those with below-median hours. This observational finding indicates that larger doses of personal care services are associated with reduced likelihood of institutionalization.	Higher levels of personal care were associated with lower nursing home placement, suggesting that service intensity may be an important factor in supporting continued community living.	Observational/modeling study; cost savings depend on risk group, local nursing home cost, waiver cost, and incremental PCS hours.	Moderate	Yes. Explicit PCS-hours and PCS-cost model.
[8]	Sands LP, Xu H, Thomas J, et al. (2012). Volume of home- and community-based services and time to nursing-home placement. Medicare & Medicaid Research Review. https://doi.org/10.5600/mmrr.002.03.a03	Individuals receiving attendant care services under HCBS waivers (as described in the evidence base).	Nursing Home Admission/Institutionalization	Attendant care and delayed institutionalization: A time-to-event (survival) analysis found that each additional five-hour increment per month of attendant care services was associated with about a 5% reduction in the hazard of nursing home placement (Hazard Ratio = 0.95). In other words, more attendant care hours per month correlated with a modestly lower risk of eventually needing nursing home care.	Modest increases in attendant care were associated with a lower risk of nursing home placement, suggesting that even incremental service expansion may help extend community living.	Observational survival model; includes attendant care, homemaker services, and home-delivered meals; death handled as competing risk.	Moderate	Partial to Yes. Personal/attendant care finding is explicit, but not pure PCS alone.
[9]	Reckrey JM, Russell D, Fong J, et al. (2024). Home care worker continuity in home-based long-term care: associated factors and relationships with client health and well-being. Innovation in Aging. https://doi.org/10.1093/geroni/igae024	Older adults receiving home-based long-term care and their home care aides (as described in the evidence base).	Functional Status/ADLs; ED Use	Home care aide continuity: In a study of older adults receiving paid home care, having the same aide consistently was associated with better outcomes. High continuity of care was linked to improved or stable functional status (average marginal effect, AME ≈ +0.050) and a reduced likelihood of falls (AME ≈ –0.034). However, aide continuity did not show a significant association with fewer ED visits, indicating that continuity mainly benefits day-to-day outcomes like function and safety.	When people have consistent home care aides, outcomes improve—functional status increases (AME +0.050) and falls decrease (AME –0.034)—showing that investing in workforce stability is a practical way to improve safety at home and avoid costly downstream health events.	Continuity may proxy for workforce stability, plan quality, or participant complexity. No direct cost outcome.	Moderate	Yes for home care/PCS-like workforce continuity; not a unit-cost PCS result.
[10]	Irvin CV, Bohl A, Stewart KH, et al. (2017). Money Follows the Person 2015 annual evaluation report. Centers for Medicare & Medicaid Services. Available at: https://collections.nlm.nih.gov/catalog/nlm:nlmuid-101741203-pdf	Participants transitioning from institutions under Money Follows the Person (MFP).	Quality of Life	Transition to community and QoL: In the Money Follows the Person (MFP) program evaluation, individuals who transitioned from institutions to community living reported a large increase in satisfaction with their living arrangements after one year in the community (about 92% satisfied post-transition vs 62% pre-transition). This before-and-after finding demonstrates significant quality-of-life gains following a move to HCBS settings.	Community transition was associated with a substantial increase in reported living-arrangement satisfaction, indicating meaningful quality-of-life gains for many participants.	Pre/post transition satisfaction data; may reflect transition supports and environment, not a single HCBS service.	Moderate	No. MFP/community transition broadly.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[11]	Greene AM, Straker JK, Cooke A, et al. (2021). Better care experiences and quality of life: new evidence from Mathematica favors managed care delivery of long-term services and supports. Mathematica Policy Research (press release). http://www.mathematica.org/news/better-care-experiences-and-quality-of-life-new-evidence-from-mathematica-favors-managed-care	MLTSS enrollees vs fee-for-service LTSS beneficiaries (as described in the evidence base).	Quality of Life	Managed LTSS vs FFS (self-reported QoL): A cross-state analysis of NCI-AD survey data found that Medicaid Managed LTSS (MLTSS) enrollees rated their care experience and quality of life more favorably than comparable Fee-for-Service (FFS) LTSS beneficiaries. The biggest MLTSS advantages were in domains like access to services, having control over one's life, and maintaining social relationships.	MLTSS participants reported more favorable experiences in several quality-of-life domains, including access, control, and social relationships.	Self-reported quality domains; managed-care context and state mix affect generalizability.	Moderate	No. MLTSS delivery model broadly.
[12]	Wysocki A, Libersky J, Gellar J, et al. (2020). Medicaid Managed Long-Term Services and Supports: Summative Evaluation Report. Mathematica (for CMS). https://www.mathematica.org/publications/medicaid-managed-long-term-services-and-supports-summative-evaluation-report	MLTSS enrollees vs fee-for-service LTSS beneficiaries (as described in the evidence base).	Quality of Life	MLTSS vs FFS (access & autonomy): Similarly, a multi-state evaluation highlighted that MLTSS enrollees outperform FFS peers on key measures related to service access, personal control, and social connectedness. In summary, across the outcomes examined, those in MLTSS generally reported better experiences than those in FFS LTSS.	Across states, MLTSS enrollees generally reported better experiences related to access and autonomy than fee-for-service LTSS participants.	Evaluation spans diverse MLTSS programs; does not isolate individual services.	Moderate	No. MLTSS broadly.
[13]	Friedman C (2025). Disparities in quality of life outcomes and quality of supports among people with disabilities who receive home- and community-based services (HCBS). Journal of Developmental and Physical Disabilities. https://doi.org/10.1007/s10882-025-10035-7	HCBS recipients with disabilities receiving services in the community (as described in the evidence base).	Quality of Life; Functional Status/ADLs	Uneven outcomes & disparities in HCBS: An analysis of Personal Outcome Measures among HCBS recipients with disabilities found that, on average, individuals had only 48.4% of the measured quality-of-life and functional outcomes present. Moreover, a significant portion of variation in outcomes was explained by sociodemographic factors (like race, income, etc.), indicating substantial disparities in who achieves better outcomes under HCBS.	Right now, people are only achieving about 48% of desired HCBS outcomes—and much of the variation is driven by disparities—making the case for targeted investments in quality supports and equity strategies so HCBS delivers consistent, measurable results for all populations.	Disability/HCBS quality outcome analysis; not a cost or PCS dose study.	Moderate	No. HCBS supports broadly.
[14]	Ko MJ, Newcomer R, Kang T, et al. (2014). Payment rates for personal care assistants and the use of long-term services and supports among those dually eligible for Medicare and Medicaid. Health Services Research. https://doi.org/10.1111/1475-6773.12249	Dually eligible beneficiaries; county-level PCA wages in California (as described in the evidence base).	Workforce/Access	Personal care aide (PCA) wages & HCBS use: A study in California found that higher county-level wages for PCA workers were associated with a greater likelihood of hospital patients transitioning to HCBS rather than to nursing homes. Quantitatively, each wage increase corresponded to about a 1.2-fold higher relative chance (RRR ~1.2) of discharge to community care instead of an institution, suggesting that better PCA pay may improve the attractiveness or availability of HCBS post-hospitalization.	When PCA wages are higher, more people successfully transition home instead of into nursing facilities—about a 1.2x greater likelihood—showing that investing in the workforce is a direct, practical way to expand HCBS access and avoid unnecessary institutional costs.	Wage-rate association; higher PCA wages can improve access but do not automatically generate savings.	Moderate	Yes. Personal care assistant payment rates.
[15]	Degenholtz HB, Treat A, Kastner K, Yauch J (2024). The effect of Medicaid managed long-term services and supports on participant quality of life and unmet need. Innovation in Aging. https://doi.org/10.1093/geroni/igae098.3172	Participants in Pennsylvania's Community HealthChoices program (as described in evidence base).	Quality of Life	MLTSS impact on well-being & care coordination: An evaluation of Pennsylvania's Community HealthChoices (an MLTSS program) showed a nuanced impact. After enrollees transitioned to MLTSS, overall psychological well-being did not change significantly, but depressive symptoms declined, and participants were more likely to report having a care coordinator to assist with their services. These results suggest targeted mental health and coordination benefits from the MLTSS model without a detectable change in global well-being.	In Pennsylvania's Community HealthChoices program, participants reported fewer depressive symptoms and better access to care coordination—showing that well-designed MLTSS can quickly strengthen the supports people need to stay stable in the community and avoid higher-cost crisis care.	MLTSS evaluation; mental health/coordination outcomes may not translate directly to utilization savings.	Moderate	No. MLTSS broadly.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[16]	Dillon E, Fortinsky RH, Barry L, et al. (2024). Potentially preventable hospitalizations in a Connecticut Medicaid home and community-based services population. Innovation in Aging. https://pmc.ncbi.nlm.nih.gov/articles/PMC11692449/	Connecticut Medicaid HCBS participants evaluated for potentially preventable hospitalizations.	Hospitalization	Wide variation in avoidable hospitalization rates: A multi-state study of Medicaid HCBS programs found large differences in potentially preventable hospitalization (PPH) rates across HCBS waivers, ranging from as low as ~0.8% up to 15.7%. This wide range suggests that program-level factors (e.g., difference in services, integration with health care) can greatly influence how well HCBS participants avoid hospitalizations that could be prevented.	Variation in potentially preventable hospitalization rates suggests that program design, service mix, and health care integration may influence avoidable acute care use.	Potentially preventable hospitalization rates vary by waiver and claims algorithm; causal program effects are not isolated.	Moderate	No. HCBS waiver population broadly.
[17]	U.S. Department of Health and Human Services (2024). Best Practices in the MFP Demonstration – Report to Congress. https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/mfp-best-practices-rtc-feb2024.pdf	MFP participants in New York compared to matched controls (as described in evidence base).	ED Use	MFP participation & ED use: A federal report on Money Follows the Person (MFP) found that in New York State, program participants had fewer emergency department visits and observation stays compared to matched non-participants. This suggests that the transition supports and services provided through MFP can translate into less reliance on emergency care for those who move to the community.	In New York, MFP participants had fewer ED visits and observation stays than similar individuals who didn't transition, showing that investing in structured transition and stabilization supports can reduce crisis-driven care and make community living more cost-effective and sustainable.	MFP transition-support evidence; reflects structured transition model, not a PCS-only intervention.	Moderate	No. MFP transition supports broadly.
[18]	Hashemi L, Henry AD, Gillispie E, et al. (2008). The relationship of personal assistance service utilization to other Medicaid payments among working-age adults with disabilities. Home Health Care Services Quarterly. https://doi.org/10.1080/01621420802581451	Working-age adults using PAS in Massachusetts (as described in evidence base).	Hospitalization; Cost/Expenditures	PAS enrollment & hospital utilization (working-age adults): In Massachusetts, a comparison of working-age adults with disabilities found that after enrolling in personal assistance services (PAS), individuals experienced a 50% reduction in hospital spending (versus a 38% reduction among similar non-enrollees) and their average hospital stay length fell from 12 days to 8 days. These improvements suggest substantial health care utilization benefits associated with PAS use.	After enrolling in personal assistance services, participants saw a 50% drop in hospital spending (vs. 38% for non-enrollees) and shorter stays, from 12 days to 8, showing that investing in in-home supports directly reduces acute care costs while helping people stay healthier in the community.	PAS reduced hospital payments, but total Medicaid payments rose because PAS itself added cost; use as acute offset, not net savings.	Moderate	Yes. Personal Assistance Services.
[19]	Libersky J, et al. (2018). Managed Long-Term Services and Supports: Interim Evaluation Report (as cited in the evidence base). https://www.mathematica.org/publications/managed-long-term-services-and-supports-interim-evaluation-report	Older adults in state MLTSS programs (New York and Tennessee referenced in evidence base).	Hospitalization; System-Level Policy/MLTSS	State variation in MLTSS hospital outcomes: An interim evaluation of Medicaid managed LTSS programs illustrated mixed effects on hospital utilization: New York's managed long-term care program appeared to lower hospital use, whereas Tennessee's program showed no clear change in hospitalizations compared to traditional care. This indicates that the impact of MLTSS on acute care can vary by state context and program implementation.	MLTSS results vary by state, New York reduced hospital use while Tennessee saw no change, showing that managed care can deliver real ROI when designed and overseen well, but requires strong implementation and accountability to consistently reduce high-cost utilization.	MLTSS effects vary by state and implementation; not an individual service finding.	Moderate	No. MLTSS broadly.
[20]	Maayan N, Soares-Weiser K, Lee H (2014). Respite care for people with dementia and their carers. Cochrane Database of Systematic Reviews. Issue 1. Art. No.: CD004396. doi:10.1002/14651858.CD004396.pub3	People with dementia and their carers in respite-care trials.	Respite (Adult Day/Other); Caregiver Burden/Mental Health	Respite RCT evidence: A Cochrane review identified four heterogeneous trials and found no significant effects of respite care compared with no respite care on caregiver variables. The authors rated the evidence as very low quality and cautioned that the results may reflect the lack of high-quality research rather than proof that respite is ineffective.	Use this citation to support caution about low-dose or heterogeneous respite evidence; do not use it to argue that well-designed or adequately dosed respite cannot help caregivers.	Very low-quality, heterogeneous trial evidence; limited ability to evaluate dose, service model, or longer-term institutional outcomes.	Moderate-Low	No. Respite/caregiver support; not PCS/PAS.
[21]	Kaiser Family Foundation (2015). Money Follows the Person: A 2015 state survey of transitions, services, and costs. https://www.kff.org/other/report/money-follows-the-person-a-2015-state-survey-of-transitions-services-and-costs/	People transitioning out of institutions under MFP across states (as discussed in evidence base).	Nursing Home Admission/Institutionalization	MFP reinstitutionalization (national survey benchmark): A 2015 survey of state Money Follows the Person (MFP) programs reported an average reinstitutionalization rate of about 8% for participants, meaning roughly 8% of those who transitioned had returned to an institution. This entry should be read as the national benchmark reported in the survey, not as a state-specific estimate.	This citation provides a national MFP benchmark: most participants remain in the community after transition, and the survey-reported reinstitutionalization rate was about 8%. Use this entry for broad national context rather than for a state-specific comparison.	Survey of MFP transitions; state reporting differences may affect comparability.	Moderate	No. MFP transition broadly.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[22]	Robison J, Porter M, Shugrue N, Kleppinger A, Lambert D (2015). Connecticut's "Money Follows The Person" yields positive results for transitioning people out of institutions. Health Affairs. 34(10):1628–1636. DOI: 10.1377/hlthaff.2015.0244	Connecticut MFP context described in evidence base text.	Nursing Home Admission/Institutionalization	Connecticut MFP one-year reinstitutionalization: An analysis of 2,262 Connecticut Money Follows the Person participants transitioned during 2008–2014 found that about 14% were reinstitutionalized within one year, meaning roughly 86% remained in the community. The article also reported significant gains in quality of life and life satisfaction among participants who remained in the community.	Connecticut's MFP results were positive overall: about 86% of participants remained in the community one year after transition, while roughly 14% were reinstitutionalized. This makes the row a verified Connecticut-specific complement to citation [21], which remains the national MFP benchmark.	State-specific observational program evaluation from Connecticut; reinstitutionalization rates may reflect participant mix, transition supports, and local program design.	Moderate-Low	No. MFP transition broadly.
[23]	Harrison JM, Sheng F, Josberger R, et al. (2023). Changes in nursing home use following Medicaid-supported expanded access to home- and community-based services for older adults with dementia. JAMA Network Open. https://doi.org/10.1001/jamanetworkopen.2023.22520	Beneficiaries with dementia in New York under mandatory MLTSS policy (as described in evidence base).	Nursing Home Admission/Institutionalization; System-Level Policy/MLTSS	Mandatory MLTSS & nursing home use (dementia): An extensive study (n≈463,947) focusing on older adults with dementia in New York found that implementation of a mandatory MLTSS program was associated with a decrease in nursing home use among this population. The large scale of this observational analysis lends weight to the finding that a statewide managed care policy can shift care patterns away from institutionalization for high-need groups like those with dementia.	At a population scale, New York's mandatory MLTSS program reduced nursing home use among nearly 464,000 people with dementia—showing that well-designed, statewide HCBS models can meaningfully shift utilization away from high-cost institutions and support people to remain in the community.	Large observational policy analysis; MLTSS implementation and dementia population context matter.	Moderate-High	No. State MLTSS/HCBS access broadly.
[24]	Fabius C, Shugrue N, Robison J (2020). Outcomes associated with home and community-based service use among older adults following a nursing home transition. Journal of Gerontological Social Work. https://doi.org/10.1080/01634372.2020.1830328	MFP participants receiving different HCBS service types after nursing home transition (as discussed in evidence base).	Nursing Home Admission/Institutionalization	Post-transition service type & readmission: Among nursing home residents who transitioned back to the community (via MFP), those who received more intensive services like personal care aides or live-in support had lower odds of returning to a nursing home compared to those who received only basic services like homemaker assistance. This finding implies that the type and intensity of HCBS after transition are important in preventing readmissions to institutions.	After transitioning from nursing homes, people who receive more intensive HCBS—like personal care aides or live-in support—are less likely to return, showing that higher-touch services are a smart investment to prevent costly readmissions and make community living sustainable.	Post-transition service mix; intensity matters, but specific PCS contribution is not fully isolated.	Moderate	Partial. Personal care/live-in supports are included but compared within broader HCBS packages.
[25]	Marek KD, Popejoy LL, Petroski GF, et al. (2005). Clinical outcomes of aging in place. Nursing Research. https://doi.org/10.1097/00006199-200505000-00008	HCBS recipients in an "Aging in Place" program vs matched nursing home residents (as described in evidence base).	Functional Status/ADLs	Aging in Place vs nursing home (function outcomes): In a program evaluation that matched community dwellers to nursing home residents, individuals who remained at home with HCBS ("Aging in Place" program) had better ADL (Activities of Daily Living) outcomes at 6, 12, and 24 months than their matched nursing home counterparts. This indicates more favorable functional trajectories over time for those supported at home versus in institutional care, even when comparing similar baseline profiles.	People supported at home through Aging in Place programs maintain better functional independence over time than comparable nursing home residents—showing that HCBS not only keeps people in the community, but helps them live more independently and sustain better long-term outcomes.	Matched Aging in Place model; nurse coordination and bundled supports limit attribution to PCS alone.	Moderate	No. Aging in Place HCBS model broadly.
[26]	Ettner SL (1994). The effect of the Medicaid home care benefit on long-term care choices of the elderly. Economic Inquiry. https://doi.org/10.1111/j.1465-7295.1994.tb01315.x	Older adults eligible for a Medicaid home care subsidy (as discussed in evidence base).	Nursing Home Admission/Institutionalization	Medicaid home care benefit & NH entry: An older econometric analysis found that having access to a Medicaid home care subsidy significantly reduced the probability of nursing home entry for eligible older adults, compared to seniors who lacked such a benefit. In essence, the availability of home care funding through Medicaid was associated with more individuals choosing or managing to remain in community care rather than moving into nursing facilities.	When Medicaid covers home care, fewer people enter nursing homes—showing that benefit design directly shapes utilization, and investing in HCBS is a proven way to reduce institutional demand while supporting people to remain at home.	Older econometric study; Medicaid home-care benefit design differs from current programs.	Moderate-Low	Partial. Home care benefit may include PCS but is not PCS-isolated.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[27]	Russell D, Burgdorf JG, Reckrey JM (2026). Does switching to consumer-directed personal care impact health and service utilization among Medicaid enrollees in the New York metropolitan area? Journal of the American Medical Directors Association. 27(4):106120. doi:10.1016/j.jamda.2026.106120	10,479 MLTSS enrollees in the New York metropolitan area switching to consumer-directed personal care (as described in evidence base).	Hospitalization; Functional Status/ADLs	Switching to consumer-directed care (matched study): In a propensity-score matched cohort (~10,500 MLTSS enrollees), those who switched from agency-directed to consumer-directed personal care had markedly better outcomes. The switch was associated with a 55% lower odds of all-cause hospitalization (OR=0.45, p<0.001) and a 31% lower odds of experiencing falls (OR=0.69), as well as slower functional decline. These statistically significant differences suggest substantial benefits linked to consumer direction in personal care under managed LTSS.	Switching to consumer-directed care delivers clear results—participants have 55% lower odds of hospitalization and 31% fewer falls—showing that giving people control over their care is a proven way to improve safety and reduce high-cost utilization while supporting independence in the community.	Matched observational study; switchers chose consumer direction, so unmeasured selection may remain. No direct cost outcome.	Moderate-High	Yes. Medicaid-funded personal care, consumer-directed model.
[28]	Wang S, Yan D, Temkin-Greener H, Cai S (2021). Nursing home admissions for persons with dementia: role of home- and community-based services. Health Services Research. 56(6). doi:10.1111/1475-6773.13715	Dual-eligible beneficiaries with dementia (n=365,310 noted in evidence base).	Nursing Home Admission/Institutionalization	HCBS availability & dementia NH admissions: A national study of dual-eligible adults with dementia (~365,000 individuals) found that counties with broader HCBS reach (higher HCBS participation rates) had slightly lower nursing home admission rates for people with dementia. Specifically, a 10 percentage-point increase in a county's HCBS "breadth" was associated with a 1.4 percentage point reduction	When HCBS reach expands, system outcomes shift—a 10 percentage-point increase in community access is linked to a 1.4 percentage-point drop in dementia-related nursing home admissions—showing that broad HCBS investment reduces institutional demand and supports people to stay in the community.	County-level HCBS breadth; dementia-specific and ecological exposure measure.	Moderate	No. HCBS availability broadly.
[29]	Young Y, Kalamaras J, Kelly L, Hornick D, Yucel R (2015). Is aging in place delaying nursing home admission? Journal of the American Medical Directors Association. 16(10):900.e1–900.e6. doi:10.1016/j.jamda.2015.07.017	Home health service recipients (as described in evidence base).	Nursing Home Admission/Institutionalization	Home health and delaying NH entry: Research on older adults receiving home health services showed these services extended time living in the community by around 8 months on average. Over a 5-year period, the typical "community tenure" before permanent nursing home admission increased from roughly 17 months (without home health) to 25 months (with home health). This population-level extension suggests home health can substantially delay institutionalization.	Home health meaningfully extends time in the community—about 25 months vs. 17 without it—showing that investing in these services delays nursing home entry, reduces institutional costs, and gives people more time living where they prefer: at home.	Home health timing study; service package differs from Medicaid PCS/PAS.	Moderate	No. Home health broadly.
[30]	Gaugler JE, Kane RL, Kane RA, Newcomer R (2005). Early community-based service utilization and its effects on institutionalization in dementia caregiving. The Gerontologist. 45(2):177–185. doi:10.1093/geront/45.2.177	Dementia caregiving families (as described in evidence base).	Nursing Home Admission/Institutionalization	Early HCBS use in dementia caregiving: A longitudinal study of 4,761 families caring for a person with dementia found that starting in-home or adult day services earlier in the caregiving process significantly delayed the eventual placement of the care recipient into a nursing home. The timing of service introduction was a key factor: earlier uptake of support, even after accounting for dementia severity and caregiver stress, led to longer community tenure for the person with dementia.	Starting in-home or adult day services earlier in dementia care delays nursing home placement—showing that early HCBS investment is a force multiplier that extends time in the community and delivers stronger long-term ROI than waiting until families reach crisis.	Dementia caregiving and early community services; mixed service bundles and older study.	Moderate	No. Community services broadly.
[31]	Benjamin AE, Matthias RE, Franke TM (2000). Comparing consumer-directed and agency models for providing supportive services at home. Health Services Research. 35(1 Pt 2):351–366. PMCID: PMC1089106	People receiving supportive services at home (consumer-directed vs agency models).	Consumer Direction/Satisfaction	Consumer-directed vs agency care (synthesis): Multiple studies (including Benjamin et al. 2000) collectively show that Medicaid consumer-directed home care models are associated with better outcomes than agency-directed models. Consumers directing their care report higher satisfaction, fewer unmet needs, and even some safety improvements relative to those receiving agency-managed services (even when accounting for differences in case mix).	Consumer-directed models consistently perform better—people report higher satisfaction, fewer unmet needs, and even some safety improvements—showing that giving individuals control over their care is a proven way to strengthen stability at home and deliver truly person-centered HCBS.	Consumer-directed vs agency supportive services; satisfaction/control may not equal cost savings.	Moderate	Partial to Yes. Supportive services/home care model overlaps with PAS.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[32]	Wiener JM, Anderson WL, Khatutsky G (2007). Are consumer-directed home care beneficiaries satisfied? Evidence from Washington State. The Gerontologist. 47(6):763–774. doi:10.1093/geront/47.6.763	Consumer-directed home care beneficiaries (Washington State referenced by citation title).	Consumer Direction/Satisfaction	Consumer-directed care (Washington State example): Consistent with other research, a study of Washington State's consumer-directed home care found beneficiaries were more satisfied and had fewer unmet needs under the consumer-directed option compared to agency care. Such findings underscore the trend that consumer direction improves key subjective outcomes relative to traditional models.	In Washington State, consumer-directed participants report higher satisfaction and fewer unmet needs—reinforcing that self-direction is a practical, evidence-based way to improve experience, close service gaps, and support more stable, community-based care.	Satisfaction evidence; not a utilization or cost study.	Moderate	Partial. Consumer-directed home care, not pure PCS/PAS.
[33]	Clark M, Hagglund KJ, Sherman AK (2008). A longitudinal comparison of consumer-directed and agency-directed personal assistance service programs among persons with physical disabilities. Disability and Rehabilitation. 30(12):914–921. doi:10.1080/09638280701463878	Persons with physical disabilities receiving PAS (per citation title).	Consumer Direction/Satisfaction	Consumer-directed PAS (physical disabilities): In line with broader evidence, research focusing on individuals with physical disabilities receiving personal assistance services found that consumer-directed service models were linked to higher satisfaction and fewer unmet needs compared to agency-directed models. This suggests that even for populations with significant physical care needs, consumer direction offers measurable advantages.	Even among people with significant physical disabilities, consumer-directed personal assistance leads to higher satisfaction and fewer unmet needs—showing that self-direction is a scalable, high-impact model that improves outcomes even for those with the most complex care needs.	Physical disability PAS program comparison; longitudinal but not randomized.	Moderate	Yes. Personal assistance service programs.
[34]	Zarit SH, Kim K, Femia EE, Almeida DM, Klein LC (2014). The effects of adult day services on family caregivers' daily stress, affect, and health: outcomes from the Daily Stress and Health (DaSH) study. The Gerontologist. 54(4):570–579. doi:10.1093/geront/gnt045	Family caregivers using adult day services (ADS).	Respite (Adult Day/Other); Caregiver Burden/Mental Health	Adult Day Services (ADS) & caregiver daily stress: A daily diary study (DaSH) of family caregivers using ADS for respite found caregivers had lower care-related stress and better mood on days when ADS was utilized. Additionally, ADS use buffered the impact of other non-care stressors on caregiver depression, meaning caregivers were less emotionally affected by everyday stress on days they had respite.	Adult day services make a measurable difference day-to-day—caregivers experience lower stress, better mood, and protection against depression on days they're used—showing that investing in respite is a practical way to sustain caregiving and prevent costly breakdowns in community living.	Adult day services stress study; does not isolate in-home respite or PCS.	Moderate	No. Adult day services.
[35]	Gaugler JE, Jarrott SE, Zarit SH, Stephens MPA, Townsend A, Greene R (2003). Respite for dementia caregivers: the effects of adult day service use on caregiving hours and care demands. International Psychogeriatrics. 15(3). doi:10.1017/S1041610203008743	Dementia caregivers using adult day services (ADS).	Respite (Adult Day/Other); Caregiver Burden/Mental Health	ADS and caregiving burden (behavioral management): Research on dementia caregiving revealed that utilizing ADS was associated with reduced time spent managing difficult behaviors and a lower frequency of such behavioral problems in care recipients. In essence, by giving caregivers regular breaks, ADS may also help stabilize the care recipient's behavior, easing the overall caregiving burden.	Adult day services make home care more manageable—caregivers spend less time handling difficult behaviors and see fewer of them overall—showing that respite not only supports caregivers but stabilizes daily care and reduces the risk of institutional placement.	Dementia caregiver adult day service evidence; service availability and uptake vary.	Moderate	No. Adult day services.
[36]	Li Y (2025). Respite care in adult day services: an updated systematic review from 2015 to 2025. Innovation in Aging. 9(Supplement 2):igaf122.851. doi:10.1093/geroni/igaf122.851	Studies of ADS respite (as summarized in evidence base).	Respite (Adult Day/Other); Nursing Home Admission/Institutionalization; Cost/Expenditures	ADS systematic review (2015–2025): An updated systematic review (covering 25+ studies) concluded that adult day services can delay nursing home placement and are cost-effective over time. The evidence indicates that consistent use of ADS provides meaningful long-term benefits in prolonging community living and offers good value for the cost when evaluated over the long run.	A broad evidence base shows adult day services delay nursing home placement and are cost-effective over time—making them a high-value HCBS investment that extends community living while delivering strong return on dollars spent.	Systematic review/abstract context; updated evidence may be heterogeneous, but it is a verified bibliographic source.	Moderate-Low	No. Adult day/respite services.
[37]	Gaugler JE, Zarit SH, Townsend A, Stephens MPA, Greene R (2003). Evaluating community-based programs for dementia caregivers: the cost implications of adult day services. Journal of Applied Gerontology. 22(1):118–133. doi:10.1177/0733464802250049	Dementia caregivers (per citation title).	Cost/Expenditures	ADS and cost efficiency for caregivers: A longitudinal study of dementia caregivers using ADS found the cost per day of reducing caregiver stress and depression declined over 3 months and 1 year of sustained ADS use. In practical terms, regular, ongoing use of adult day services became more cost-efficient over time (though the study did not quantify exact dollar savings), suggesting that sustained respite yields increasing returns by better supporting caregiver well-being over the long run.	Adult day services become more cost-effective over time—as ongoing use lowers the cost of reducing caregiver stress and depression—showing that sustained investment in respite delivers increasing ROI by strengthening caregiver stability and keeping people in the community longer.	Cost implications of adult day services; not Medicaid PCS/PAS.	Moderate	No. Adult day services.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[38]	Newcomer R, Ko MJ, Kang T, et al. (2016). Health care expenditures after initiating long-term services and supports in the community versus in a nursing facility. Medical Care. 54(3):281–288. doi:10.1097/MLR.0000000000000491	Beneficiaries initiating LTSS in the community (HCBS) vs in a nursing facility (as described in evidence base).	Cost/Expenditures	Institution vs. community LTSS costs: A large matched cohort study reported that starting long-term care in a nursing facility was associated with roughly $2,919 more in monthly expenditures per person compared to initiating care with HCBS in the community. This cost difference was almost entirely due to much higher LTSS costs in institutional care rather than differences in acute care spending, underscoring the costliness of nursing facilities relative to home care.	Starting long-term care in a nursing facility costs about $2,900 more per person each month than starting with HCBS—making community-based care the clear, fiscally responsible default that reduces costs while supporting people to live at home.	Matched LTSS setting comparison; strong cost signal but broad HCBS vs nursing facility, not PCS-specific.	Moderate-High	No. Broad HCBS vs nursing facility initiation.
[39]	Duan-Porter W, Ullman KE, Rosebush CE, et al. (2020). Interventions to prevent or delay long-term nursing home placement for adults with impairments — a systematic review of reviews. Journal of General Internal Medicine. 35(1):246–259. doi:10.1007/s11606-019-05568-5	Adults with impairments needing LTSS (as described in evidence base).	Nursing Home Admission/Institutionalization	Mixed evidence on HCBS preventing NH placement: A comprehensive systematic review of 47 reviews found no consistent overall benefit of general HCBS interventions in preventing or delaying long-term nursing home placement when focusing on higher-quality evidence (like RCTs). However, positive effects were observed in more intensive, targeted programs, suggesting that while routine HCBS alone might not always avert institutionalization, robust interventions can have an impact.	The evidence is clear—basic, low-intensity HCBS alone doesn't consistently delay nursing home placement, but targeted, high-intensity supports do—showing that funders get the best ROI by investing in robust, well-designed models rather than minimal service packages.	Review of reviews; interventions are heterogeneous and not specific to Medicaid PCS.	Moderate	No. Nursing-home-placement interventions broadly.
[40]	Xu H, Weiner M, Paul S, et al. (2010). Volume of home- and community-based Medicaid waiver services and risk of hospital admissions. Journal of the American Geriatrics Society. 58(4):641–647. doi:10.1111/j.1532-5415.2010.02763.x	Medicaid waiver participants receiving HCBS (as discussed in evidence base).	Hospitalization	Personal care hours cuts & hospitalization: An analysis of Medicaid HCBS waiver data found that reductions in authorized personal care hours were associated with a significant increase in hospitalization risk. Specifically, cutting back on personal care services was linked to roughly 10% higher odds of a hospital admission (Odds Ratio ~1.10, 95% CI 1.03–1.18). This suggests that providing fewer hours of care may inadvertently raise acute care utilization, highlighting the importance of maintaining adequate service levels.	Cutting personal care hours may look like savings, but it leads to about 10% higher odds of hospitalization—showing that underfunding HCBS can backfire by increasing costly acute care use and worsening outcomes.	Waiver-service volume and hospital admissions; service bundle limits PCS-only attribution.	Moderate	Partial. Includes personal/attendant services but not PCS-only.
[41]	Sussman T, Regehr C (2009). The influence of community-based services on the burden of spouses caring for their partners with dementia. Health & Social Work. 34(1):29–39. doi:10.1093/hsw/34.1.29	Spousal caregivers of partners with dementia (per citation title).	Respite (Adult Day/Other); Caregiver Burden/Mental Health	Community vs in-home respite (caregiver burden): A comparative study on dementia caregiving indicated that community-based respite services (like adult day programs) outperformed in-home respite in reducing caregiver burden. Caregivers reported greater relief when using structured community respite compared to solely having in-home respite help, suggesting that the mode of respite delivery can influence the level of burden reduction.	Community-based respite often works better than in-home care alone—programs like adult day services reduce caregiver burden more effectively—showing that investing in a full range of respite options delivers greater relief, sustains caregiving longer, and helps prevent costly institutional placement.	Dementia spousal caregiver burden; community services are not isolated to PCS/PAS.	Moderate	No. Community-based services/respite broadly.
[42]	Larson, S. A., Lakin, K. C., & Hill, S. (2012). Behavioral outcomes of moving from institutional to community living for people with intellectual and developmental disabilities: U.S. studies from 1977 to 2010. Research and Practice for Persons with Severe Disabilities, 37(4), 235–246. https://doi.org/10.2511/027494813805327287	People with intellectual and developmental disabilities (IDD) who moved from institutional settings to community residential settings	Functional Status/ADLs	Community transition was consistently linked to stronger adaptive functioning. Of 11 treatment/comparison studies, 7 found significant adaptive behavior improvements for people moving to community settings versus those remaining institutionalized. Among 27 longitudinal studies, 15 found significant gains and 5 found additional positive but nonsignificant change. Findings on challenging behavior were mixed: of 26 studies, 8 found significant change, including 5 improvements and 3 worse outcomes.	The long-term evidence is clear—when people with I/DD move from institutions to community settings, adaptive skills usually improve, showing that community living is not just more person-centered, but a better platform for independence and long-term quality of life.	IDD deinstitutionalization literature review; older studies and varying service models.	Moderate	No. IDD community living broadly.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[43]	Lifshitz, H., Merrick, J., & Morad, M. (2008). Health status and ADL functioning of older persons with intellectual disability: Community residence versus residential care centers. Research in Developmental Disabilities, 29(4), 301–315. https://doi.org/10.1016/j.ridd.2007.06.005	Older adults with intellectual disability in matched residential comparisons: 101 people living in community residences and 101 peers living in residential care centers, matched by age, gender, etiology, and level of IDD.	Functional Status/ADLs	In this matched comparison of 202 older adults with IDD, residence type by itself did not explain morbidity patterns; instead, outcomes were shaped more by age and etiology. Participants with no specific etiology of IDD functioned better in ADLs than those with Down syndrome (10%) or cerebral palsy (16%), and the cerebral palsy subgroup appeared most vulnerable to medical problems and ADL decline with age.	For older adults with intellectual disability, the setting alone does not determine outcomes—what matters is whether community living is paired with the right aging, health, and functional supports, especially for people with Down syndrome or cerebral palsy.	IDD residence comparison; residence type alone may not identify specific service effect.	Moderate-Low	No. IDD residential setting.
[44]	Oppewal, A., Hilgenkamp, T. I. M., van Wijck, R., Schoufour, J. D., & Evenhuis, H. M. (2014). Physical fitness is predictive for a decline in daily functioning in older adults with intellectual disabilities: Results of the HA-ID study. Research in Developmental Disabilities, 35(10), 2299–2315. https://doi.org/10.1016/j.ridd.2014.05.027	Older adults with borderline to profound intellectual disability, age 50 years and older	Functional Status/ADLs;	Over 3 years, decline in functioning was common: 54.8% of participants declined in their ability to perform ADLs and 37.5% declined in mobility. At follow-up, only 12.6% were completely independent in ADLs and 48.5% had no mobility limitations. Multiple physical fitness measures—including manual dexterity, balance, gait speed, muscular endurance, and cardiorespiratory fitness—significantly predicted later decline.	Among older adults with I/DD, functional decline is common—but it is also predictable—showing that proactive investment in physical fitness, mobility, and prevention supports can help people maintain independence and avoid more intensive services later.	Aging IDD cohort; functional decline risk, not service-effect estimate.	Moderate	No. IDD aging/fitness risk.
[45]	Smith, L. E., Maenner, M. J., & Seltzer, M. M. (2012). Developmental trajectories in adolescents and adults with autism: The case of daily living skills. Journal of the American Academy of Child & Adolescent Psychiatry, 51(6), 622–631. https://doi.org/10.1016/j.jaac.2012.03.001	Adolescents and adults with ASD followed for 10 years, plus a comparison group with Down syndrome. ASD participants were ages 10–52 at baseline, and 70% had co-occurring intellectual disability.	Functional Status/ADLs	Over a 10-year period, daily living skills in adolescents and adults with autism improved through adolescence and the early 20s but then plateaued in the late 20s. In this sample (n = 397), having co-occurring intellectual disability (70% of participants) was associated with both lower initial daily living skills and slower improvement over time.	People with autism can keep gaining daily living skills well into adolescence and early adulthood—but progress often stalls later—making the case for sustained, community-based skill-building and supports that do not end after the transition years.	Autism daily-living-skills trajectory; not Medicaid HCBS or PCS evaluation.	Moderate	No. Developmental trajectory study.
[46]	Marek KD, Stetzer F, Adams SJ, Popejoy LL, Rantz M (2012). Aging in place versus nursing home care: comparison of costs to Medicare and Medicaid. Research in Gerontological Nursing. 5(2):123-129. doi:10.3928/19404921-20110802-01.	Older adults in Missouri Aging in Place model compared with nursing home residents.	Cost/Expenditures; Functional Status	Nurse-coordinated Aging in Place participants had $1,591.61 lower monthly total Medicare and Medicaid costs than nursing home care while companion outcomes evidence showed better functional trajectories.	A well-supported HCBS model can pair lower monthly spending with better functional outcomes, but this is a bundled care-coordination model rather than PCS alone.	Nurse-coordinated Aging in Place model; not necessarily generalizable to all HCBS or PCS-only programs.	Moderate	No. Broad Aging in Place HCBS model.
[47]	Kitchener M, Ng T, Miller N, Harrington C (2006). Institutional and community-based long-term care: a comparative estimate of public costs. Journal of Health & Social Policy. 22(2):31-50. doi:10.1300/J045v22n02_03.	National Medicaid HCBS waiver participants compared with institutional care.	Cost/Expenditures	Using 2002 data, national modeling estimated $43,947 in annual public expenditure savings per HCBS waiver participant compared with institutional care.	Shows a large per-person HCBS cost advantage under substitution assumptions; use as upper-bound national cost signal.	Modeled national comparison using 2002 data; best read as potential substitution savings, not observed expansion savings.	Moderate	No. HCBS waiver broadly.
[48]	Harrington C, Ng T, Kitchener M (2011). Do Medicaid home and community based service waivers save money? Home Health Care Services Quarterly. 30(4). doi:10.1080/01621424.2011.622249.	National Medicaid HCBS waiver participants compared with institutional care.	Cost/Expenditures; Woodwork	Using 2006 data, the authors estimated $57,338 in annual savings per waiver participant; they also modeled how a woodwork effect could reduce aggregate net savings.	Reinforces per-person HCBS cost advantage while supporting a balanced caveat that aggregate savings depend on substitution.	Modeled national comparison using 2006 data; authors note woodwork assumptions can reduce net savings.	Moderate	No. HCBS waiver broadly.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[49]	Shireman TI, Rigler SK (2004). Penny wise, pound wise: a comparison of Medicaid expenditures for home and community-based services versus nursing facility care for older adults. Home Health Care Services Quarterly. 23(4):15-28. doi:10.1300/J027v23n04_02.	Kansas Medicaid Frail & Elderly HCBS enrollees compared with nursing home users.	Cost/Expenditures	Adjusted monthly Medicaid expenditures were $1,281 lower for HCBS enrollees than nursing home users.	State evidence supports lower monthly Medicaid costs for HCBS relative to nursing facility care.	Single-state Frail & Elderly program; benefit design and case mix affect generalizability.	Moderate	No. HCBS program broadly.
[50]	Blackburn J, Locher JL, Kilgore ML (2016). Comparison of long-term care in nursing homes versus home health: costs and outcomes in Alabama. The Gerontologist. 56(2):215-221. doi:10.1093/geront/gnu021.	Matched Alabama nursing home residents versus home health/community care recipients.	Cost/Expenditures; Outcomes	Medicaid long-term care costs were $4,582 greater for nursing home residents over one year, while acute care costs and mortality were similar.	Community care had lower Medicaid LTC costs without clear evidence of worse acute care or mortality outcomes.	Alabama home health/community care comparison; not PCS-only and one-state matched cohort.	Moderate	No. Home health/broad community care.
[51]	Sands LP, Xu H, Weiner M, Rosenman MB, Craig BA, Thomas J III (2008). Comparison of resource utilization for Medicaid dementia patients using nursing homes versus home and community based waivers for long-term care. Medical Care. 46(4):449-453. doi:10.1097/MLR.0b013e3181621eae.	Indiana Medicaid dementia patients using nursing homes versus HCBS waivers.	Cost/Expenditures; Hospitalization	HCBS waiver users had $1,688 lower monthly LTC expenditures than nursing home users, although inpatient use increased over time.	HCBS had a sizable LTC cost advantage for dementia participants, but acute-care offset assumptions should be cautious.	Dementia-specific Medicaid population; inpatient use rose over time, so acute offsets should not be assumed.	Moderate	No. HCBS waiver broadly.
[52]	Kaye HS, LaPlante MP, Harrington C (2009). Do noninstitutional long-term care services reduce Medicaid spending? Health Affairs. 28(1):262-272. doi:10.1377/hlthaff.28.1.262.	State Medicaid long-term care spending and HCBS rebalancing patterns.	System-Level Cost/Expenditures	States with established HCBS programs experienced slower long-term care spending growth than low-HCBS states, while transition periods could temporarily increase spending.	Aggregate savings are possible under mature rebalancing, but not automatic during rapid expansion.	State-level spending trends; program maturity and institutional capacity shape aggregate outcomes.	Moderate	No. System-level HCBS.
[53]	Weissert WG, Lesnick T, Musliner M, Foley K (1997). Cost savings from home and community-based services: Arizona's capitated Medicaid long-term care program. Journal of Health Politics, Policy and Law. 22(6):1329-1357.	Arizona statewide capitated Medicaid long-term care program.	System-Level Cost/Expenditures	Arizona's capitated HCBS-oriented long-term care program showed cost savings that did not erode over time.	Integrated financing and capitated design can strengthen the fiscal case for community-based care.	Arizona capitated model; older integrated program context may not generalize to all states.	Moderate	No. System-level/capitated HCBS.
[54]	McGarry BE, Grabowski DC (2023). Medicaid home and community-based services spending for older adults: Is there a "woodwork" effect? Journal of the American Geriatrics Society. 71(10):3143-3151. doi:10.1111/jgs.18478.	State Medicaid HCBS spending for adults age 65+.	System-Level Cost/Expenditures; Woodwork	Each $1.00 increase in HCBS spending was associated with a $0.26 nursing home spending offset and a $0.74 increase in total LTSS spending; the study found no evidence of increased Medicaid enrollment among adults 65+ in aggressive expansion states.	Woodwork is a fiscal guardrail, but recent evidence supports real institutional offsets and does not support a blanket enrollment-surge assumption.	State-level analysis of adults age 65+; may not capture all forms of woodwork or disability populations.	Moderate-High	No. State HCBS spending broadly.
[55]	Konetzka RT, Jung DH, Gorges RJ, Sanghavi P (2020). Outcomes of Medicaid home- and community-based long-term services relative to nursing home care among dual eligibles. Health Services Research. 55(6):973-982. doi:10.1111/1475-6773.13573.	Dually eligible adults receiving Medicaid HCBS versus nursing home care.	Hospitalization; Cost Caveat	Adjusted analyses found higher hospitalization rates among HCBS users than nursing home counterparts in some populations.	Important counterargument: HCBS LTSS savings can be partly offset if community settings produce more hospital transfers.	Counterweight to broad savings claims; setting differences may shift acute care costs toward hospitals.	Moderate-High	No. Broad HCBS vs nursing home setting.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
[56]	Wang S, Temkin-Greener H, Simning A, Konetzka RT, Cai S (2024). Outcomes after community discharge from skilled nursing facilities: the role of Medicaid home and community-based services. Journal of Applied Gerontology. 43(10):1536-1543. doi:10.1177/07334648241242942.	People discharged from skilled nursing facilities to community settings.	Hospitalization; Nursing Home Admission	More generous HCBS programs were associated with reduced nursing home admissions and some improved post-SNF outcomes.	Service generosity/intensity matters; sufficiently resourced HCBS may improve cost-related outcomes after SNF discharge.	Post-SNF discharge context and program generosity; not PCS-specific.	Moderate	No. HCBS program generosity broadly.
[57]	Jones PA, Conroy JW, Feinstein CS, Lemanowicz JA (1984). A matched comparison study of cost-effectiveness: institutionalized and deinstitutionalized people. Journal of the Association for Persons with Severe Handicaps. 9(4):304-313. doi:10.1177/154079698400900408.	People with intellectual/developmental disabilities in institutions versus community settings.	Cost/Expenditures; Functional Status	Deinstitutionalized people required less total public money and showed adaptive behavior growth, while the institutional group did not.	IDD evidence directionally favors community care on cost and adaptive outcomes, but the evidence is older.	Older IDD matched comparison; service models and costs differ from modern HCBS.	Low-Moderate	No. IDD community vs institution broadly.
[58]	Friedman C (2017). Community integration of people with intellectual and developmental disabilities: a national longitudinal analysis. Disability and Health Journal. 10(4):616-620. doi:10.1016/j.dhjo.2016.12.018.	People with intellectual/developmental disabilities receiving community supports.	Quality of Life; Community Integration	Longitudinal evidence documents the structural shift toward own-home and community-integrated settings for people with IDD.	Supports the community-integration rationale for HCBS, but not a direct dollar estimate.	IDD community integration trend analysis; not a direct cost-effectiveness study.	Moderate	No. IDD community integration broadly.
[59]	Freeman WJ, Weiss AJ, Heslin KC (2018). Overview of U.S. hospital stays in 2016: variation by geographic region. HCUP Statistical Brief #246. Agency for Healthcare Research and Quality. https://hcup-us.ahrq.gov/reports/statbriefs/sb246-Geographic-Variation-Hospital-Stays.jsp	U.S. inpatient hospital stays.	Cost Benchmark	Provides national inpatient cost/stay benchmarks used only to translate avoided hospitalization scenarios into gross dollar ranges.	Useful for scenario framing; state Medicaid/Medicare paid amounts should be used for program estimates.	External national inpatient benchmark; use only for gross-value scenarios unless state-paid amounts are available.	High for benchmark data; Low for direct HCBS inference	No. Cost benchmark only.
[60]	Moore BJ, Liang L (2020). Costs of emergency department visits in the United States, 2017. HCUP Statistical Brief #268. Agency for Healthcare Research and Quality. https://www.ncbi.nlm.nih.gov/books/NBK566654/	U.S. emergency department visits.	Cost Benchmark	Provides national ED cost/visit benchmarks used only to translate avoided ED-use scenarios into gross dollar ranges.	Useful for scenario framing; not direct evidence of HCBS savings.	External national ED benchmark; use only for gross-value scenarios unless state-paid amounts are available.	High for benchmark data; Low for direct HCBS inference	No. Cost benchmark only.
[61]	Ghosh A, Orfield C, Schmitz R (2014). Evaluating PACE: A Review of the Literature. Mathematica Policy Research, for ASPE/HHS.	PACE participants and comparison groups across PACE evaluations.	Federal Comparator/PACE; Hospitalization; Nursing Home Use	PACE literature review found several evaluations reporting lower hospital and nursing home use for PACE enrollees, while also noting methodological limitations and mixed cost evidence.	PACE supports the integrated-care comparator argument, especially around hospital and nursing home utilization, but should be framed as largely observational evidence.	Review of varied studies; limited randomized evidence and comparison-group concerns.	Moderate	No. Integrated PACE model, not PCS/PAS.
[62]	Mahoney EK, Milliken A, Mahoney KJ, Edwards-Orr M, Willis DG (2019). “It’s Changed Everything”: Voices of Veterans in the Veteran-Directed Home and Community Based	Veterans enrolled in Veteran-Directed HCBS.	Federal Comparator/Veteran Direction; Quality of Life	Qualitative interviews and focus groups with 21 veterans found five themes: choice, personhood, staying at home, coming back to life, and keeping healthy and safe.	Veteran-directed care provides a qualitative federal comparator for self-direction, emphasizing dignity, choice, perceived safety, and ability to remain at home.	Qualitative nonprobability sample; not a utilization or cost study.	Moderate-Low	Partial. Participant-directed home care overlaps with self-directed PCS/PAS concepts.

Citation #	Full Citation	Population	Outcome Domain	Key Finding (with statistics)	Executive Takeaway	Caveats	Confidence	PCS/PAS specificity
	Services Program. Journal of Gerontological Social Work. 62(2):129–148. doi:10.1080/01634372.2018.1458054							
[63]	Beales JL, Edes T (2009). Veteran's Affairs Home Based Primary Care. Clinics in Geriatric Medicine. 25(1):149–154, viii–ix. doi:10.1016/j.cger.2008.11.002	Veterans receiving VA Home-Based Primary Care.	Federal Comparator/HBPC; Hospitalization; Cost	VA HBPC evidence summarized reductions in hospital days, admissions, nursing home days, and total VA costs among high-need veterans receiving comprehensive home-based primary care.	HBPC supports the federal comparator argument that intensive, clinically integrated home-based models can reduce acute and institutional utilization.	Program evaluation evidence; not Medicaid HCBS and not PCS/PAS-only.	Moderate	No. Comprehensive clinical home-based primary care model.
[64]	Yamaki K, Wing C, Mitchell D, Owen R, Heller T (2019). Health service utilization and state costs among adults aging with early-acquired physical disabilities in Medicaid managed care. Journal of Aging and Health. 31(10_suppl):97S–123S. doi:10.1177/0898264318808192	Adults aging with early-acquired physical disabilities in Illinois Medicaid managed care.	MLTSS/Managed Care; ED Use; Hospitalization; Cost	Difference-in-differences analysis found Medicaid managed care reduced ED use by 3.2 percentage points per month and reduced inpatient admissions among older enrollees by 3.3 percentage points per month.	Managed care can reduce acute utilization in some disability populations, but effects vary by population and program design.	State-specific managed care study; not limited to LTSS or PCS/PAS.	Moderate	No. Managed care population, not PCS/PAS-only.
[65]	Bhaumik D, Wallace J, Grabowski DC, Schlesinger MJ (2025). The impact of introducing managed care intermediaries for long-term services and supports. Health Services Research. 60(4):e14462. doi:10.1111/1475-6773.14462	Adults age 65+ with functional limitations in states implementing MLTSS.	MLTSS; Access; Service Intensity	Staggered difference-in-differences analysis found MLTSS increased home care users by 2.5 percentage points but reduced monthly formal care hours among home care recipients by about 7.02 hours, or nearly 27%.	MLTSS can expand access while diluting average service intensity; oversight should monitor hours and outcomes, not just enrollment.	HRS-based quasi-experimental study; does not isolate specific service types or state implementation details.	Moderate-High	No. MLTSS/home care broadly.
[66]	Roberts ET, Kizilcec V, Alcusky M, et al. (2024). Quality, spending, utilization, and outcomes among dual-eligible Medicare-Medicaid beneficiaries in integrated care programs: a systematic review. JAMA Health Forum. 5(7):e242187. doi:10.1001/jamahealthforum.2024.2187	Dual-eligible beneficiaries in integrated care programs including PACE, MMPs, and FIDE-SNPs.	Integrated Care; Medicare Spending; Hospitalization; Nursing Home Use	Systematic review found variable evidence across integrated care programs: some reductions in long-term nursing home stays, mixed/inconclusive hospitalization effects, and higher Medicare spending in many MMP evaluations.	Integrated care evidence is mixed; use it to support caution that Medicare spillovers and total spending effects depend heavily on model design.	Heterogeneous programs and outcomes; observational evaluations with residual bias concerns.	Moderate	No. Integrated care programs broadly.

Appendix B: Woodwork Effect - Counterarguments

Woodwork Concern	Countervailing Evidence / Argument
"Expanding HCBS will drive up total Medicaid costs (no net savings)." States worry that new enrollees "coming out of the woodwork" will wipe out cost savings.	Per-person HCBS is still substantially cheaper than institutional care when it substitutes for nursing facility or comparable institutional services [38], [47]–[51]. Recent state-level evidence also found no increased Medicaid enrollment among adults ages 65+ in aggressive HCBS expansion states. Each additional $1.00 in HCBS spending was associated with $0.26 in lower nursing home spending and $0.74 in net LTSS spending growth, meaning offsets are real even when total LTSS spending rises [54].

"New HCBS users would not have needed expensive care otherwise." Some argue that woodwork enrollees are lower-need individuals who would have stayed on free informal care.	Some new users may not be immediate nursing home substitutes, but many have real unmet needs. The evidence links unmet need to higher ED use and other adverse outcomes, suggesting that timely HCBS can prevent crisis-driven care even when the beneficiary would not immediately enter an institution [6], [16], [18]. The appropriate conclusion is not that every new user creates savings, but that unmet need has a cost and should be monitored alongside institutional substitution.
"It shifts costs from families to taxpayers." Critics note that expansions pay for care tasks families were doing for free, transferring financial burden to Medicaid.	Formal support can stabilize unpaid caregiving rather than replace it. With HCBS and respite support, caregivers report less stress and greater ability to continue care. That value is not always captured as immediate Medicaid savings, but it can prevent burnout-related breakdowns that lead to hospitalization, ED use, or premature institutionalization [30], [34]–[37], [41].
"Unlimited demand could overwhelm budgets." The worry is that offering HCBS to all eligible people without waiting lists would create a spending spiral.	This is a legitimate implementation concern and the reason targeting and pace matter. States can mitigate budget risk by phasing expansion, prioritizing people at high risk of institutionalization, tracking substitution against nursing home days, and monitoring service intensity. The evidence supports offsets and per-person cost advantage, but not an untargeted promise of automatic net savings [52], [54].