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TOPICS IN EDUCATION

# A Feasibility Study of Primary Care Liaisons: Linking Older Adults to Community Resources

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**Introduction:** Programs and services available through the aging services network can help community-dwelling older adults to age in place but are often not discussed in routine primary care. The primary care liaison was developed as a novel integration intervention to address this disconnect.

**Methods:** Employed by an Area Agency on Aging, primary care liaisons performed outreach to primary care with the goal of raising awareness of community-based programs, resources, and services available to older adults and their caregivers and facilitating referrals. The evaluation of the primary care liaison model, conducted from December 2015 to February 2019, used the Reach, Effectiveness, Adoption, Implementation, Maintenance framework and assessed reach (number of clinics contacted), adoption (number of referrals to the Area Agency on Aging), implementation (number of follow-up contacts with a practice), and effectiveness (proportion of referrals reached and provided relevant resources).

**Results:** The primary care liaisons contacted a median of 18.5 clinics per month (IQR=15−31). Primary care referrals averaged >100 per month, and referrals increased over time. Successful follow-up outreach visits had a median of 3 (IQR=2−10), and follow-up contacts had a median of 3 (IQR=1−7) per practice. Three quarters of caregivers for people with dementia reached by Area Agency on Aging staff were provided with information about relevant resources.

**Conclusions:** The primary care liaison model is feasible, fosters ongoing interactions between primary care and Area Agencies on Aging, and connects older adults and their caregivers to relevant programs and services. Adoption of the primary care liaison model by other Area Agencies on Aging across the U.S. may help further the vision of optimized health and well-being of older adults.


## INTRODUCTION

Ensuring that the growing aging population maximizes its health and well-being requires more than high-quality medical care. Community resources are needed to bolster health system efforts to keep older adults healthy, engaged, supported, and empowered to age in place for as long as possible.[1] Clinical practice settings are often ill-equipped to address key behavioral health issues[2] and support mental and emotional health.[3] Practice settings also infrequently attend to the needs of family caregivers[4,5] or other social

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determinants of health[1,6] owing to time constraints.[6,7] The richness of community-based programs and services that address these areas can help older adults better age in place but are often not discussed in routine primary care.[8,9] This disconnect is a significant public health concern because the provision of services solely through a clinical setting may miss important opportunities to optimize health, health equity, and well-being; place increased pressure on family caregivers; and increase the use of costly long-term care.[3] The National Academy of Medicine has recognized the need for integration of primary care and public health to achieve the goal of optimizing population health and lowering costs.[10]

A number of factors may explain the lack of integration, such as providers being unaware of relevant community resources,[11,12] limited cross-sectoral communication, and lack of shared workflows (e.g., referral and tracking mechanisms). Many older adults lack awareness of community resources,[13,14] consider their healthcare providers a credible information source,[15] and are unlikely to contact community agencies. However, providers infrequently encourage their patients to seek out community programs.[16] Responsibility often falls to other practice staff who lack knowledge of available resources.[17] Correspondingly, community agencies often lack connection to clinical practice settings.[18] As more adults live longer,[19] strategies that enhance mutual awareness, trust,[20] and clinical–community linkages to better serve this growing population are greatly needed.

Since their inception under the 1973 Older Americans Act, Area Agencies on Aging (AAAs) are charged with connecting older adults to community resources. AAAs offer 5 core services: nutrition services, caregiver resources, evidence-based health and wellness programs, elder rights information, and supportive services.[21] When older adults and their caregivers are connected with appropriate services through an AAA, a broad range of benefits results. Notably, AAAs connect older adults to evidence-based programs that reduce the risk of adverse health outcomes (e.g., fall-related injuries)[22,23] and low-value care (e.g., use of antipsychotics for management of dementia-related behavioral disturbances)[24–26] and improve health (e.g., depression severity)[27] and quality of life.[28,29] Some of these programs have also reduced healthcare costs.[30]

More than 600 AAAs serve the U.S.,[31] and most are dually designated as Aging and Disability Resource Centers (ADRCs).[32] ADRCs were implemented to deliver visible and trusted resources and referrals to services beyond those offered by the AAAs. A national survey of AAAs found that counties whose AAAs had informal partnerships with health care and other organizations had significantly lower hospital readmission rates, and those with nursing home diversion programs had significantly lower nursing home use than counties with AAAs without these features.[33] However, integration of AAAs with health systems remains limited, with only 60% of AAAs citing partnerships with healthcare providers.[31]

The authors sought to address this situation through the creation of a novel integration intervention,[34] a primary care liaison (PCL), whose role was to actively bridge between an AAA and primary care. The concept for the PCL arose from discussions between 2 of the authors (EAP and MPO), in which the AAA staffer described how she intentionally reached out to primary care practices in her AAA's catchment area to offer information about and facilitate primary care access to AAA-sponsored programs and services. Integration interventions actively bridge public health and clinical practice to improve the coordination of services for individuals and achieve efficient, effective health care and optimized population health.[8,11,34,35] Integration interventions help to avoid the duplication of care and have been found to improve health behaviors[8] and outcomes[8] and reduce avoidable hospital readmissions and healthcare costs.[33] A number of integration interventions have targeted preventive health.[8,11] Few have addressed the care of a specific population subgroup such as older adults.[20] It was hypothesized that the PCL would increase the referrals of primary care patients to community resources and help to connect patients, their families, and caregivers to these resources. This paper describes the development of the PCL model and the evaluation of its feasibility and preliminary impact.

## METHODS

The Northwest Geriatrics Workforce Enhancement Center, 1 of 48 centers in the U.S. that promote high-quality, age-friendly care,[36] collaborated with 2 AAAs in Washington State to develop and implement the PCL model: Aging and Disability Services (ADS) of Seattle–King County and Area Agency on Aging and Disabilities of Southwest Washington (AAADSW). Both AAAs had a history of working with academic institutions to test interventions and disseminate evidence-based programs.[26,27] Both AAAs operate ADRCs but implement programs and services differently. ADS serves a population of 2,190,200, of which 18% are aged ≥60 years.[37] The population is racially and ethnically diverse, with 22% of residents born outside of the U.S.[37] ADS administers its ADRC services through a diffused network model, in which ADS contracts with 12 other community agencies to provide information and assistance services. AAADSW serves the 706,335 residents of 5 counties: Clark, Cowlitz, Klickitat, Skamania, and Wahkiakum, of whom 24% are aged ≥60 years.[38] A total of 4 of these counties are considered rural, and 1 (Clark) is considered urban. AAADSW uses a centralized model, delivering many services directly to clients and through contracts with 2 senior services


**Figure 1.** The catchment areas of ADS of Seattle-King County and AAADSW in Washington State.
AAADSW, Area Agency on Aging and Disabilities of Southwest Washington; ADS, Aging and Disability Services.

providers in 2 of its most rural areas. Figure 1 shows the catchment areas of ADS and AAADSW.

Interventions that are integrated into a primary care practice and employ >1 practice change modality have demonstrated effectiveness in changing healthcare provider practice behaviors.[39–41] The provider practice change necessary for the PCL to be successful was an initiation of referrals to the AAA. A total of 3 practice change modalities were incorporated into the design of the PCL model:

1. educational in-person outreach visits between a PCL and provider(s) in the clinical setting to convey information intended to change practice patterns. Such visits have also been identified as academic detailing, public interest detailing, and university-based educational detailing[42,43];
2. written reminders of options provided at the time of the interaction to emphasize and reinforce a particular strategy or behavior[39,44,45];
3. social marketing approaches to encourage provider engagement through the use of concise informational materials, repeating key messages and providing reinforcement through ongoing interactions.[46]

An individual was hired by each AAA for the full-time PCL role. PCLs were embedded at the AAA to harness the individual's firsthand knowledge of AAA operations and resources, to establish working relationships with other AAA staff, and to provide ideal positioning for outreach to primary care. PCLs cultivated relationships with primary care practices to raise awareness of AAAs and relevant agency resources (and to facilitate connections to appropriate resources). If practices were already aware of the AAA and accessing relevant resources, the PCL focused on strengthening the relationships. Outreach routinely included sharing information about how to place a referral to the AAA on behalf of a patient. Practice teams were advised about what information to include and how to specify the referral reason for each patient.

The PCL was implemented by each AAA beginning in December 2015. Primary care practices within the catchment area of each AAA were identified through landscape research and analysis. A list of practices was compiled, including specific attributes to help prioritize practices for outreach. Attributes included type of practice (e.g., hospital-based clinic; freestanding, independent primary care practice; county-run public health clinic; nonprofit community health center), existing contacts, known geriatrics specialists, and the existence of personnel in roles such as care coordinators or patient navigators. The initial contact and up to 3 follow-up attempts to connect with a practice were most often made by phone or e-mail. On reaching a practice, the PCL explained the reason for the contact and offered to visit the provider's clinical setting (outreach visit) and share information about AAA resources.

The context and content of an in-person outreach visit varied depending on the audience and practice needs. Outreach visits could involve the PCL presenting to a clinic team (i.e., providers, nurses, social worker, and support staff) during an early morning huddle or a routine team meeting or a 1-on-1 interaction with a

**Table 1.** RE-AIM Framework Applied to the Evaluation of PCL Integration Intervention

| RE-AIM dimension | PCL evaluation measure | Data source |
|---|---|---|
| Reach | Number of unique health systems contacted by PCL | PCL outreach log (Excel spreadsheet maintained by PCL to organize and track their outreach efforts) |
| Adoption | Number of referrals from primary care to the AAA's ADRC[a] | ADS: referrals received via ADRC's toll-free telephone number<br>AAADSW: paper referral forms |
| Implementation | Number of return outreach visits and follow-up contacts (e-mails and phone calls) by PCL | Same as Reach (above) |
| Effectiveness | Proportion of referrals for persons with dementia for whom AAA staff reached the caregiver and provided education and support[b] | Referral forms and ADRC client contact database[b] |
| Maintenance | Not assessed due to lack of data for long-term sustainability | N/A |

[a]Referral data were tracked as number/month/year and not linked to the PCL outreach log.
[b]The analysis of effectiveness focused on a single population subgroup, that is, caregivers of persons with dementia. The measure was selected because it addresses a condition prevalent among older adults and likely to be impacted by the work of the PCL.[48,49] No other subgroups were assessed.
[c]Data from AAADSW only. Data were drawn from the first and last 6 months of the evaluation period.
AAA, Area Agency on Aging; AAADSW, Area Agency on Aging and Disabilities of Southwest Washington; ADRC, Aging and Disability Resource Center; ADS, Aging and Disability Services of Seattle–King County; N/A, not applicable; PCL, primary care liaison; RE-AIM, Reach, Effectiveness, Adoption, Implementation, Maintenance.

physician or social worker. At a typical outreach visit, the PCL presented high-level information about the AAA and its resources and inquired about issues commonly faced by practice team members. The PCL then tailored the information provided to address those specific issues. The PCL left written materials, handouts, and pamphlets about the resources discussed and promoted the use of the ADRC system for inquiries about services and referrals for patients. The PCL reinforced practice knowledge of existing social service resources and offered PCL services as a liaison through ongoing support and case staffing. After the outreach visit, the PCL mailed or e-mailed a thank you message along with any follow-up information that the practice had requested (e.g., digital copies of materials shared, referral form).

The PCL initiated follow-up communications (most frequently e-mail but also telephone) after outreach visits on a practice-individualized schedule. Follow-up often covered any questions or need for clarification that the initial outreach visit to the practice had generated, sought to identify any additional needs to which the PCL could bring AAA resources to bear, and reaffirmed the PCL's ongoing availability and willingness to address the community resource needs of the practice. For some practices, follow-up involved weekly discussion of referrals and their outcomes. The availability of new services or programs through the AAA or the Northwest Geriatrics Workforce Enhancement Center partnership (e.g., new online lectures) also prompted follow-up contacts with practices.

Each PCL employed a unique method to receive referrals from primary care practices and attribute referrals to their outreach, in accordance with their respective agency structures and systems. ADS's referral form was directed to its ADRC program, and basic information pertaining to the referrals was reported monthly to ADS. In addition, ADS worked with its ADRC staff and local safety-net hospital to develop an electronic medical record–embedded referral form. AAADSW's referral form (Appendix, available online) was directed (fax or e-mail) to its PCL, who coordinated with agency and ADRC staff for follow-up.

The Northwest Geriatrics Workforce Enhancement Center evaluated the PCL model following the Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework[47] for evaluating health promotion interventions. The evaluation period spanned from December 2015 to February 2019. Table 1[48,49] describes the RE-AIM framework dimensions as applied to the PCL intervention and data sources. Barriers to and facilitators of successful cross-site linkages were identified from analysis of PCL outreach logs. Logs contained information about practice type (e.g., hospital-based outpatient clinic, public health clinic) and nature of staffing (e.g., presence of a social worker). Data were transmitted to the evaluation team after being abstracted from the agency's records by employees internal to the AAAs. University of Washington Human Subjects Division guidelines determined that IRB approval was not required for this program evaluation.

### Statistical Analysis

Descriptive statistics were used to characterize reach, adoption, implementation, and effectiveness. Time-trend regression models and graphs were used to depict the counts of referrals received and follow-up contacts over time. Factors that facilitated or impeded successful outreach were assessed using standard techniques of directed qualitative content analysis.[50] All quantitative analyses were performed from deidentified data using Stata, version 15.

## RESULTS

### Reach

The PCLs made initial contact with 103 unique clinical entities with a total of 862 first outreach contacts (phone calls and e-mails) and 73 first outreach visits. A median of 18.5 (IQR=15–31) clinical entities were newly contacted per month by the 2 PCLs.

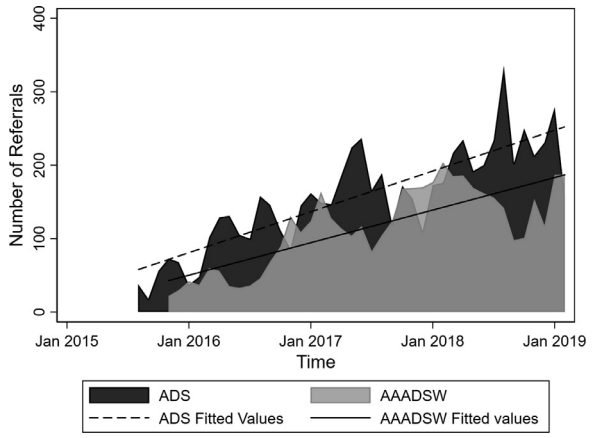


**Figure 2.** Referrals from primary care to community resources increasing over time since the inception of the PCL model by Area Agencies on Aging: ADS of Seattle-King County and AAADSW.

AAADSW, Area Agency on Aging and Disabilities of Southwest Washington; ADS, Aging and Disability Services; Jan, January; PCL, primary care liaison.

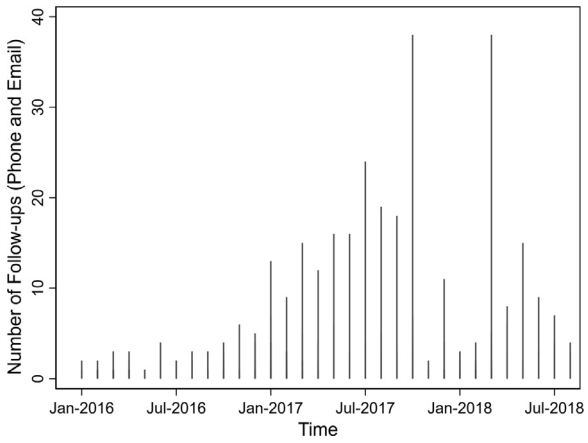


**Figure 3.** Follow-up contacts (phone calls and e-mails) between primary care and the PCL increasing over time (across 2 Area Agencies on Aging).

Jan, January; Jul, July; PCL, primary care liaison.

### Adoption

A total of 3,604 referrals from primary care practices were received at AAADSW, averaging 109 referrals per month (range=22–204). A total of 6,488 calls to the ADS referral line were received, averaging 164 referrals per month (range=18–335). As shown in Figure 2, fitted values from 2 regression models revealed positive linear trends, with the number of referrals to both agencies increasing over time (ADS: $\beta$=4.6, 95% CI=3.6, 5.7; AAADSW: $\beta$=3.7, 95% CI=2.8, 4.6).

### Implementation

The median number of follow-up outreach visits to practices was 3 (IQR=2–10) per practice. The median number of follow-up contacts (e-mails and phone calls) was 3 (IQR=1–7) per practice. Follow-up contacts increased substantially over time (Figure 3).

### Effectiveness

Among 100 unique referrals from primary care to AAADSW where Alzheimer resources were selected as the reason for the referral, 84 included contact information for a caregiver. Of these, 99% of referred caregivers were contacted by AAADSW staff, and 76% were provided educational materials or additional referrals to caregiver-relevant resources.

Several facilitators and barriers were identified to achieving successful cross-site linkages. Successful connections often began with 5 minutes of the time allotted to the PCL at a morning huddle. These brief interactions increased the PCL's role legitimacy and garnered trust that set the stage for future collaboration. Connecting with practice leadership or decision makers (e.g., clinic manager, clinic medical director) who acted as champions of the cross-site connection empowered others in a practice to connect patients to resources, either through modeling enthusiasm or by making introductions that facilitated referrals. Examining less successful relationships (ones that did not result in regular referrals) revealed the barriers for freestanding/independent medical practices. These practices often had no social worker on staff, a patient base of more affluent SES, and limited quality monitoring programs.

## DISCUSSION

The PCL is a novel integration intervention to help older adults successfully age in place by bridging silos between primary care and community resources. The evaluation demonstrates that the PCL model is feasible to implement and generates referrals from primary care to the AAA to facilitate patient access to community resources and services. In addition, this evaluation demonstrates the effectiveness of the model in linking caregivers of people with dementia to relevant programs and supports. Patients desire health care that is well coordinated and that takes into account both family and community.[51] The PCL model holds promise for optimizing primary care with regard to these important patient-centered priorities.

Providers, researchers, and policymakers have identified the need for an increased focus on community and population health in primary care.[52] Creating linkages between primary care practices and community agencies

that can expertly connect patients to area services and resources is an essential first step to effectively leveraging community resources and ultimately achieving community-informed primary care.[53] Although the rationale for greater integration between clinical care and community resources is clear,[53,54] examples of successful prototypes are rare. Most previous efforts have focused on the delivery of preventive services[55,56] or condition-specific chronic disease management.[55] The PCL represents one of the only integration interventions designed for older adults, their families, and caregivers and the first to have a fully salaried position operating out of a community agency[55,56] with the specific mandate of bridging to primary care. Previous integration intervention research focused on older adults has suggested that this type of in-person outreach (i.e., initiated by the organization that delivers the program/service) may be instrumental to a successful linkage.[20] Indeed, before the PCL, AAADSW received just 108 referrals from providers over a 12-month period, compared with its post-implementation monthly average of 109 referrals. Other research has found that AAAs are well positioned to foster effective partnerships between health care and social service sectors.[57] Taken together, this research and this feasibility study highlight the essential role of AAAs in initiatives to improve older adult health and evolve health care into a value-based system.

This study has several strengths. The outcome of referrals for a clinically defined subset of patients, namely persons with dementia, was determined. Structural factors that facilitated or impeded successful cross-site collaboration were identified. The findings add to the existing literature on this topic[57] by identifying the importance of a salaried bridging role, capitalizing on very brief opportunities for interaction (e.g., morning huddles), and targeting outreach to practices with the capacity to engage. Finally, these findings add to the very limited literature on integration interventions specific to older adults.

### Limitations

Several limitations bear mention. One is that the AAAs were not selected randomly. Second is the geographic restriction to Washington State. The spread of this intervention to other parts of the country will determine whether this model is able to withstand naturally occurring variations in practice environments and community agencies. Third, ADS was not able to directly attribute all referrals to the PCL's influence owing to its diffused network model. Fourth, data available for analysis were limited (e.g., the PCL outreach log contained basic outreach information pertinent to the PCL's daily work and was not linked to referral data), and stakeholder (provider, patient, and caregiver) perspectives were not assessed. Future research could address additional perspectives and examine the impacts for other relevant population subgroups as well as impacts on health outcomes, healthcare utilization, and cost effectiveness. Fifth, PCLs outreached to primary care practices using several modalities, typically in combination; the relative effectiveness of any single outreach modality could thus not be determined. Finally, because this study was designed to assess the feasibility of the PCL model, maintenance (i.e., Maintenance of the RE-AIM framework)[47] or long-term sustainability of the model was not assessed.

### Implications for Practice and Policy

One of the major challenges to implementing and sustaining the PCL model is securing the necessary funding because the model requires a dedicated individual to fill the role. Risk-based reimbursement and accountable care organization models may make collaborations appealing and could spur healthcare delivery systems to enter into cost-sharing agreements with AAAs to cover the salary and benefits of a PCL. If additional data suggest that the PCL model is effective in improving patient outcomes, advocacy for federal policy (e.g., Older Americans Act funding) or mechanisms for AAAs to bill Medicare and other insurers for their services would enable these agencies to fund PCL positions over the long term.

The PCL model is feasible to implement, fosters interactions between primary care and the aging services network, and connects older adults and their caregivers to relevant programs and services. This model may effectively address the social and behavioral determinants of health and move the needle toward successful integration of care and improved health and quality of life for older adults.

## CREDIT AUTHOR STATEMENT

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