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Identifying and overcoming implementation challenges: Experience of 59 noninstitutional long-term services and support pilot programs in the Veterans Health Administration

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Background: From 2010 to 2013, the Department of Veterans Affairs (VA) funded a large pilot initiative to implement noninstitutional long-term services and supports (LTSS) programs to support aging Veterans. Our team evaluated implementation of 59 VA noninstitutional LTSS programs.

Purpose: The specific objectives of this study are to (a) examine the challenges influencing program implementation comparing active sites that remained open and inactive sites that closed during the funding period and (b) identify ways that active sites overcame the challenges they experienced.

Methodology: Key informant semistructured interviews occurred between 2011 and 2013. We conducted 217 telephone interviews over four time points. Content analysis was used to identify emergent themes. The study team met regularly to define each challenge, review all codes, and discuss discrepancies. For each follow-up interview with the sites, the list of established challenges was used as *a priori* themes. Emergent data were also coded.

Results: The challenges affecting implementation included human resources and staffing issues, infrastructure, resources allocation and geography, referrals and marketing, leadership support, and team dynamics and processes. Programs were able to overcome challenges by communicating with team members and other areas in the organization, utilizing information technology solutions, creative use of staff and flexible schedules, and obtaining additional resources.

Discussion: This study highlights several common challenges programs can address during the program implementation. The most often mentioned strategy was effective communication. Strategies also targeted several components of the organization including organizational functions and processes (e.g., importance of coordination within a team and across disciplines to provide good care), infrastructure (e.g., information technology and human resources), and program fit with priorities in the organization (e.g., leadership support).

Implications: Anticipating potential pitfalls of program implementation for future noninstitutional LTSS programs can improve implementation efficiency and program sustainability. Staff at multiple levels in the organization must fully support noninstitutional LTSS programs to address these challenges.

Noninstitutional long-term services and supports (LTSS) are an alternative to institutional care in a nursing home by providing a variety of home and community-based services in settings ranging from recipients' own residences to various congregate living arrangements (Wysocki et al., 2012). As demand for noninstitutional LTSS grows, the U.S. health care system is rebalancing the long-term care sector with an array of noninstitutional programs to supplement already-existing institutional services (Hudson, 2010). The Affordable Care Act, in particular, provided an impetus for rebalancing by authorizing preexisting noninstitutional LTSS program expansion and the creation of new noninstitutional LTSS program options (Kapp, 2014). Nonetheless, policymakers, payment programs, and LTSS providers face challenges in rebalancing, such as getting funding to initiate or expand programs and providing enough capacity to handle the influx of older adults who prefer to receive care in the community. The demand for noninstitutional LTSS is likely to continue to grow as the population of older adults 65 and older begins to utilize formal long-term care services.

Similar to the private sector, the Veterans Health Administration (VA) is facing a growing population of older adult enrollees. VA officials project that the total number of enrollees aged 65 and older will increase from 4.1 to 4.7 million and the number of high-priority Veterans will increase from 500,000 to 1.0 million between 2013 and 2023. Prior to the Affordable Care Act, the passage of the 1999 Millennium Act (Public Law 106-117), gave all VA enrollees access to noninstitutional LTSS programs, allowing an unprecedented number of older Veterans to remain in their homes and communities in spite of significant health care needs (Shay, Hyduke, & Burris, 2013). Given the shifting demographics, it is critical to the VA to find additional ways to accommodate the needs and preferences of its growing patient population eligible for nursing home level care.

The VA has begun to address this need by implementing noninstitutional LTSS programs to support aging Veterans. Along with VA leadership commitment to transform the VA to a 21st century organization (T21 initiative), part of the VHA's 2009 Office of Geriatrics and Extended Care (GEC) strategic plan (VA Office of Strategic Integration 2013) was to offer a uniform set of Veteran-centric care and services and to continuously improve geriatric care. As a result, many efforts are ongoing in the VA.

Noninstitutional alternatives to institutional care have been expanded with more than 167 pilot programs initiated through local efforts and "transformational" support based on models validated as successful in other settings (Shay et al., 2013). These services provide long-term care to chronically ill Veterans in their own homes under the coordinated care of an expert team of providers; services are provided either directly or by contract with community-based agencies. For GEC T21 initiative, the VA adopted several specific types of noninstitutional LTSS programs including Care Management, Dementia Support, Home-Based Primary Care, Geriatric Primary Care, Hospital at Home, and the Program of All-Inclusive Care for the Elderly (Kuwahara, Saito, Arima, & Ohmi, 2011). The programs target Veterans (a) who need skilled services, case management, and assistance with activities of daily living or instrumental activities of daily living; (b) who live alone or who are isolated; and/or (c) who have caregivers who are experiencing stress (Smith & Wolfe, 2010).

The VA's Office of GEC, the sponsor of the noninstitutional LTSS initiative, commissioned our team to conduct a mixed methods program evaluation focused on the implementation process of these noninstitutional LTSS pilot programs. Although the selected programs were based on established private-sector noninstitutional LTSS models, implementation success is not necessarily guaranteed. Effective and efficient program implementation and subsequent sustainability require substantial effort especially when adapting to a new setting like the VA. Implementation science literature suggests that there are many factors that can expedite/impede implementation of a new program (e.g., resources, leadership support, communication; Chaudoir, Dugan, & Barr, 2013; Damschroder & Lowery, 2013; Kadu & Stolee, 2015; Lukas et al., 2007; Tomoaia-Cotisel et al., 2013).

Despite the previous research, much of the literature on program implementation has been in the acute care setting and has not targeted programs for older adults. However, two articles were written about the Hospital Elder Life Program, which aims to reduce delirium and prevent decline in both cognition and physical functioning in the hospital setting. Bradley et al. found that the Hospital Elder Life Program sites were faced with challenges in getting strong leadership support, finding advocates for the programs, and getting needed resources for the program (Bradley, Schlesinger, Webster, Baker, & Inouye, 2004; Bradley, Webster, Baker, Schlesinger, & Inouye, 2005). Although these findings are reflective of implementation challenges in the literature, it is unclear if the findings are applicable outside the hospital setting especially in cases where noninstitutional LTSS programs provide services that span multiple care settings. Often, LTSS programs provide care via interdisciplinary teams, which could result in better communication and coordination, thereby offsetting the difficulty of care provision spanning multiple settings. In addition, these articles are over

a decade old and may not reflect changes that have occurred in health care delivery system over that time (i.e., the move to provide more care through noninstitutional LTSS).

Thus, given the gaps in the literature, the objectives of this study are to (a) examine the challenges influencing program implementation comparing active sites that remained open and inactive sites that closed during the funding period and (b) identify strategies active sites used to overcome the challenges they experienced. Conducting the study in the VA gave us the opportunity to examine implementation of a large number of noninstitutional LTSS programs adapted from the private sector applied in a national integrated health care setting with both national oversight and local variation in how services are organized.

Methods

Study Design and Sample

This study is a 3-year process evaluation of LTSS program implementation at 59 sites spanning seven model types from fiscal year 2010 to 2013 (FY11–FY13). Table 1 displays a description of each program model type and key program operations and infrastructure requirements. We conducted qualitative interviews with key informants from each site at four time points over the course of 3 years—early implementation (Time 1), mid-implementation (Time 2 and Time 3), and sustainability (Time 4). Oversight and approval of this evaluation was provided by the Research and Development Committee at the VA Boston Healthcare System, and study participants gave informed consent.

Interview Guide Development

We developed a semistructured qualitative interview guide featuring questions about the structure of the program, implementation progress, and organizational practices (see Figure 1). The program questions concerned how the program was being run and progress on program implementation, which would allow us to understand how well their program plans and activities were working. For example, we asked, "How is your program structured?" and "Could you please describe the progress you have made with program implementation?"

To explore organizational practices, we developed questions derived from implementation literature on organizational structures and processes involved in program implementation guided by the Organizational Transformation Model (OTM; Lukas et al., 2007; VanDeusen Lukas et al., 2010). The OTM was developed in seven private sector hospitals and is included within the Consolidated Framework for Implementation Research (Damschroder & Lowery, 2013). The OTM has been used in the VA setting

Table 1

Program type and description of program operations and infrastructure

Program type	Description	Operations/infrastructure	Number of programs
Dementia Program	Dementia programs vary and focus on ways to better serve Veterans with dementia. Expected outcomes: Reduction in medication errors and caregiver burden	Dementia programs include: • in-person and telephone case management or transitional care • provision of caregivers support and education, and • provision of Adult Day Health Care	13
Transitional Care/Care Management	Short-term programs for transitional care or care management, usually from hospital to home. Expected outcomes: Decrease in 30-day readmissions and hospital length of stay	• Some programs integrate with Geriatrics Primary Care and Geriatric Evaluation and Management Program. • Some programs have a telehealth component where medical information is transferred via telephone, the Internet, or other networks for the purpose of monitoring health status, providing health education, consulting, and sometimes providing remote medical procedures or examinations.	13
Geriatric Primary Care	GPC provides medical, nursing, psychosocial, and allied health care and services to geriatric patients via a coordinated, interdisciplinary team of providers. Expected outcomes: Reduction in medication errors and ER visits	• Outpatient visits for primary care provided to geriatric patients through coordinated, interdisciplinary provision of medical, nursing, psychosocial, allied health services. • GPC addresses disease treatment and prevention, health promotion and education, referral for specialty, rehabilitation and other levels of care, follow-up and overall care management by the primary care provider and support team. • Several programs focus on GPC training on dementia or further expansion to patients with dementia.	10
Home-Based Primary Care	HBPC targets patients with complex chronic diseases using a multidisciplinary team of geriatric-skilled practitioners to provide comprehensive primary care in the home when routine clinical care seems appropriate. Expected outcomes: Reduction in bed days of care and in 30-day readmission rates	• Patients referred into HBPC are screened, then enrolled. • Staff schedule the initial home visit. • The registered nurse does the case management. • Team evaluates the patient, and thereafter, the patient is enrolled into the program. • This specific team becomes the patient's primary care team. • Nurses go to the patient's home and do medication management. • Additional patient's needs are addressed during visits (e.g., connecting patient to *meals on wheels,* community services, etc.). • Primary care team monitors the patients, and home visits are conducted no less than every 3–4 weeks. • Integration with Patient-Aligned Care Teams, Palliative Care, and Medical Foster Homes.	7

(continues)

	Table 1		
Program type and description of program operations and infrastructure, Continued			
Program type	**Description**	**Operations/infrastructure**	**Number of programs**
Program of All-Inclusive Care for the Elderly	PACE is a Medicare program and Medicaid state option that provides community-based coordinated care and services in the home, the community, and the PACE center to people aged 55 or older who otherwise would need a nursing home level of care. PACE also supports family members and other caregivers. Expected outcomes: Reduction in ER visits and hospitalization, delayed nursing home admission	VA/PACE coordinator: • Obtains referrals from Primary Care, HBPC, or other departments in VA • Reviews patients medical records for eligibility • Establishes contact with patients and their caregivers and makes initial home visits • Schedules and coordinates patient assessment PACE • Once a patient is enrolled in the PACE program, the PACE team establishes a care plan for each Veteran, which is reassessed and updated every 6 months or less, as needed. • Liaison between the VA care team and PACE and continuously monitors enrolled Veterans' overall health care needs and services	7
Other	The scope of the other programs varied substantially, and programs did not fall into the programs types otherwise listed.		5
Hospital at Home	HaH programs provide intensive, short-term care and services to patients in the home setting. HaH focus is on the following four diagnoses: chronic heart failure, chronic obstructive pulmonary disease, cellulitis, and pneumonia. There is an emphasis on the technical aspects of care usually requiring facility visits (blood testing, IV infusions, bladder scans, etc.). Expected outcomes: Reduction in hospital admissions, shortened length of stay for admitted patients, and reduction in nursing facilities placement.	• Care consists of daily visits by a registered nurse, close monitoring by the program physician including home visits, 24/7 telephone access to the clinical team, and other services are added as needed. • Depending on census, status, and eligibility criteria (diagnosis, distance from medical center, home safety, etc.), referred in-hospital patients are enrolled into the program. • The program physician completes the first in-person assessment and establishes a care plan, ideally before a patient is discharged into their homes. • Program nurses perform daily in-person home visits thereafter, providing needed care and services (including medication reconciliation) and communicating with the program physician for oversight while in patients' homes. • For each home visit, nurses perform charting in patients' medical records, which are reviewed by the program physician. • The average length of patient admission in program is 10 days.	4

Note. GPC = Geriatric Primary Care; HBPC = Home-Based Primary Care; PACE = Program of All-Inclusive Care for the Elderly; HaH = Hospital at Home.

to examine program implementation (Kertesz et al., 2014; Pogoda, Cramer, Rosenheck, & Resnick, 2011). It includes five drivers of implementation, including (a) an impetus to change, (b) leadership commitment, (c) meaningful staff engagement, (d) alignment of improvement efforts with organizational priorities and resources, and (e) integration across traditional organizational boundaries.

These drivers of change are hypothesized to influence components of the health care system including the mission, vision, and strategies that set its direction, value and norms, the operational functions and processes that represent providing services, and infrastructure (e.g., information technology [IT] and human resources [HR]; Lukas et al., 2007). We would expect that evidence of these OTM

Figure 1

Sample interview questions

Program Structure & Implementation	
Program structure & Implementation	How is your program structured? (e.g., how is it staffed? how are services provided to patients?)
	How would you describe the patient population that your program serves?
	Does your program have a system in place to document and track the implementation progress and outcomes of the program?
	Did your program require any changes to infrastructure? How so?
	How does your team coordinate with other clinics or services?
	Could you describe the progress you have made with program implementation over the last six months?
Organizational Practices	
Impetus to change	What does your medical center hope to accomplish by participating in the program?
Leadership	Has senior leadership been supportive of the program? If so, in what ways?
	Have middle managers been supportive of the program? If so, in what ways?
	Did you have any resource requests for leadership? If so, tell us about the request and what happened.
Staff Engagement	How receptive has your team been about this program?
	How receptive have other staff outside your team been about this program?
Alignment	How does this program fit into your other Geriatrics and Extended Care programs?
Integration	Have you integrated with other programs at your VAMC?
Health Care System Components	
Mission, vision and strategies & Values/Norms	Why did your medical center choose this program?
	How does this program fit within your medical center's mission? Does it fit with the culture here?
	How would you describe the visibility of this program at your VAMC (e.g., awareness in the organization, impact on other departments or sectors, etc.)?
Operational functions and processes	What factors have contributed to or hindered progress? Were you able to overcome any issus hindering progress? How did you do this?
	What program elements have changed since we last checked in? (e.g., program structure, components, staffing, target population)? Tell us more about why the change occurred.
Infrastructure (HR, IT, etc.)	What factors have contributed to or hindered progress? (e.g., IT, HR, other department)

drivers and basic components of the health care system would result in a more supportive environment for program implementation.

Data Collection

Prior to data collection, GEC identified points of contact (POCs) at each site. In addition to the POCs, we also identified additional key informants at each site based on the POC's assessment that the additional staff could provide information about program implementation. We contacted key informants by e-mailing each an invitation to participate and then scheduled informants to do individual or group interviews depending on participants' preference. We began interviewing key informants during the winter of FY2011.

Two team members participated in each interview; one conducted the interview, and the other took detailed interview notes. With permission from the key informants, we audio-recorded the interviews to supplement our interview notes. All coauthors (except KS) participated as both interviewers and notetakers across the 59 sites. We

trained the team in interviewing methods to reduce interviewer bias and in standardized note-taking practices. Prior to each data collection period, the lead interviewer reviewed the prior recordings from past interviews to help guide probes. For example, if key informants at a site had mentioned that they had a previous challenge with securing equipment, the interview team would follow up on that challenge and ask whether it was still a problem and how the site overcame or resolved the issue.

Table 2 displays the number and types of staff interviewed by model type. We conducted 217 telephone interviews over the four time points (i.e., 59 sites at Time 1, 55 sites at Time 2, 55 sites at Time 3, and 48 sites at Time 4) and conducted group interviews 44% of the time. We interviewed 140 unique key informants over the course of the study, many multiple times at different time points. On average, there were 95 key informants interviewed per time period, with a minimum of one and a maximum of seven key informants interviewed per site. For both active and inactive sites, the POCs were mostly consistent over time with only 12 changes (11 for active sites and only 1 for inactive sites) over the four time periods

Table 2									
Number of unique staff interviewed by model type and staff role									
Staff role	**DEM**	**TC/CM**	**GPC**	**HBPC**	**PACE**	**Other**	**HAH**	**Total**	
Middle manager (e.g., physician, nurse)	9	10	2	10	5	1	7	44	
Provider (e.g., physician, geriatrician, nurse practitioner)	5	7	5	1	1	4	1	24	
Program coordinator	5	3	0	2	4	1	0	15	
Case manager/social worker	6	5	1	0	0	1	0	13	
Nurse	2	5	0	1	2	1	0	11	
Clinical care coordinator	3	3	2	0	1	1	0	10	
Administrator	1	3	1	1	3	0	0	9	
Psychology/psychiatrist	2	0	2	1	0	0	0	5	
Research staff (e.g., analyst, research assistant)	1	1	1	0	0	2	0	5	
Pharmacist	1	0	1	0	0	1	0	3	
Allied health	0	1	0	0	0	0	0	1	
Total	35	38	15	16	16	12	8	140	

Note. DEM = Dementia Program; TC/CM = Transitional Care/Care Management; GPC = Geriatric Primary Care; HBPC = Home-Based Primary Care; PACE = Program of All-Inclusive Care for the Elderly; HaH = Hospital at Home.

(217 interviews). When a change occurred, the POC was already part of the team or had other team members participate on the call that had been previously interviewed. Thus, key informants participating in the evaluation were familiar with program implementation and factors affecting implementation.

Data Analysis

We used Rapid Assessment Procedures (Beebe, 2014; Meyer & Avery, 2009) to conduct analysis and report back to the sponsor of the overall evaluation. It was not feasible to have the recordings transcribed given the rapid turnaround of feedback to the sponsor. However, to assure that the notes were accurate, the second team member reviewed each recording after the interview and supplemented the notes by adding in any missing statements. The resulting documents were similar to a transcript except that we did not include every statement the interviewer said and did not record things like pauses and extraneous phrases like "hmm."

The lead interviewer at each site created a program summary for each site by transferring interview quotes from the notes into a structured matrix organized by each interview question. The coder also transferred additional evidence regarding that topic from other places in the notes as necessary. The site summaries allowed us to organize the data by topic/question and also transfer the data into Excel where the remaining analysis would take place. Once the 59 individual site summary matrices were complete, the primary analyst (OA) created a cross-site summary matrix with the data from all 59 site summaries (Miles & Huberman, 1994). The first column of the spreadsheet listed each site, and the remaining columns contained data grouped by interview question. The primary analyst (OA) then conducted content analysis, grouping relevant quotes into initial emergent categories reflecting challenges affecting implementation across all interview questions. The identified challenges were then entered into a new matrix, and the cells within the matrix contained exemplary quotes. Once coding across all sites was complete, the primary analyst (OA) and secondary analyst (JS) reviewed the evidence for each identified factor, defined the parameters of each factor, and recoded when coding discrepancies were found. Analysts agreed 90% of the time on the initial coding and through discussion and review of primary interview data reached consensus on the remaining 10% of data. Other team members who participated in data collection then gave feedback on results.

For each follow-up period (Times 2–4), we used the challenges identified at Time 1 as our *a priori* themes. We applied the same process for analysis (i.e., individual site summaries and cross-site summary analysis) at each time point. We coded one new emergent challenge called "referrals and marketing," which arose at Time 2, and was used in the analysis of data from Times 3 and 4. We then compared the challenges for active and inactive sites to see if there were any similarities or differences. We also followed the same analysis process to identify strategies to overcome challenges.

Results

On average, we found that each site faced two to three challenges as they rolled out and sustained their programs. Sites reported the most challenges during the first time point. Table 3 presents the six types of challenges, their

	Table 3	
	Examples illustrating the six challenges influencing long-term services and supports program implementation and strategies to overcome each challenge	
Factor	**Types of evidence**	**Key informants' illustrative quotes**
Human resources and staffing	• The ability to hire needed staff • Timeliness and length of the hiring process with human resources • Constraints with existing staff (e.g. being short-staffed, staff having limited hours assigned to program) • Staff turnover or lack of staff	Barrier: "We experienced delays in hiring." "The real barrier has been the Human Resources issue…getting a person hired to replace a person who is supposed to be doing the work on this project." "Staff recruitment has been a barrier." "We have had Human Resources troubles. Just getting people in place was the only barrier." Strategies: "We have cross-trained three of our other geriatric APRN's to assist until we have a replacement in place." "Staff turnover presented opportunity to relook at the needed staff positions and fine tune staff to program needs." "The MD was not familiar [with our program and] the use of electronic medical records, but we worked to meet his needs." "The biggest challenge in hiring has been the remoteness of the location…we provided a significant sign on bonus for a Nurse Practitioner staying 2 years." "Our doctor is 2 hours away and video conferences into our meetings." "We developed a job share plan to better utilize two of the existing HBPC nurses…. It helps us to integrate this program into traditional HBPC."
Infrastructure capability	• Meeting systems and technical needs • The availability of supplies and materials for program support • Efficiency in management and operations	Barrier: "Purchasing and contracting were barriers." "We have had to work on resolving technical issues with video phones." "There have been delays in getting a car and travel office's support." "It has been a learning process to creating all purchase orders through the VA system." "Our work with multiple medical centers and private fee hospitals complicates following of patients." "[We had] a difficult time obtaining government vehicles. We've had a bit of a shortage." Strategies: "We now have a credit card for our Service Line which has been helpful in getting the educational supplies and other things that we needed." "We borrowed [supplies and equipment] from other departments until we got what we need." "Our RN did not have the capability of entering orders and some of the PCPs were not entering in referral orders, so we are in the process of making changes to the policies." "One way of addressing referrals is through video visit and telehealth components of the program." "We needed to work on a few kinks (e.g. pharmacy piece, how they pick up medicine, issues with dispensing). Our pharmacist and the PACE pharmacist met one on one to talk about these issues, and that was helpful."

	Table 3	
Examples illustrating the six challenges influencing long-term services and supports program implementation and strategies to overcome each challenge, Continued		
Factor	**Types of evidence**	**Key informants' illustrative quotes**
Team dynamics and processes	• Staff fit with the program either through commitment to the program vision and/or experience and skills needed for successful implementation • Communication both within project team and with support staff • Team work, coordination and support in terms of how well program staff work together, support each other, and create a collaborative work environment	"Two people at our program got access to the non-VA hospital computer system and that will be helpful for communication." Barrier: "One challenge can be to try to get everyone to work as a team." "We have had to educate providers and deal with their resistance." "We have experienced some territoriality with nurses and providers." "We only have 1-day of clinic, so trying to accommodate everyone is difficult" "It is difficult involving multiple providers and getting everyone on the same sheet of music." Strategies: "If they have specific needs at each site, they are able to communicate with that site and they are able to get that resolved. The site is open to their suggestions on how to improve." "The challenge with the new primary care staff is them not having a good understanding of what we do, so we will do some presentations and talk to them." "We need to do more as far as educating the inpatient providers…we have to constantly remind them who will be best to be in the program."
Referrals and marketing	• Ability to receive appropriate patients' referrals into the program • The strength of program connections with other programs in order to get these referrals • Marketing efforts within and outside the medical center	Barrier: "Our program is a hard sell to providers, so we went directly to admitted patients and have no reliance on providers' referrals." "We needed to educate the inpatient providers some more and remind them of the type of candidates who are the best fit for the program." "We had to promote the program to get referrals." Strategies: "To help overcome [the lack of referrals], when patients are admitted we go in and contact the patients rather than relying on referrals from providers." "We created a transitional care consult into the internal medicine order set so there is a reminder that they should consult our program. We get involved when the patient is still in the hospital, not only after they left. That consult service has become quite active." "Getting people into the group has been challenging. We have to constantly push it to our providers. It's more of a system barrier." "I've been doing a lot of talking particularly with the care nurses on that side of the house. Talking to my team about them coming with me to attend another department's team meeting to talk about what our program is about. I want them to know my team and the people. Helping them to understand what value this is for the vets" "Because house staff turns over regularly, they need frequent reminders about our program and what it can offer."

(continues)

	Table 3	
	Examples illustrating the six challenges influencing long-term services and supports program implementation and strategies to overcome each challenge, Continued	
Factor	**Types of evidence**	**Key informants' illustrative quotes**
Resources allocation, space, and geography	• The adequacy of resources dedicated to program implementation • The extent to which a program has adequate space to either run the program or has space to gather as a team • Program location with respect to where target populations live, often requiring staff to travel long distances	Barrier: "One issue is that we have had to hustle for space." "Patient traveling distance to get to clinic is a barrier. They can easily cancel appointments." "We have had an issue with getting space to conduct assessments in the outpatient clinic." "Our medical center faces budget challenges" "Traveling and distance can be inconvenient" "Our FY11 funding was inadequate for our program." Strategies: "They have allowed us to get laptops for the staff so that they could do work out into the field, and staff have been asked to tele-work." "I am trying to work on either telework or a 9-hour shift."
Leadership perspectives	• Middle management and/or medical center leadership perceptions of the program and its importance • Leader's ability or willingness to either promote, support, prioritize, budget funding for, and/or align program activities with other related programs within the medical center	Barriers: "Leadership is looking at things from a very short-sided perspective." "It is unclear what leadership looks for to support and fund a project." "Our Chief of Staff has been very supportive but also very realistic about the bottom line. It's tight money and they will do the best they can." "It is a challenge to make our leaders happy with this program." Strategies: "To date, our program is not a high priority for senior leadership. To interest them, we profile our program at places where leadership might be present. For example ground rounds or at a presentation of our program."

Note. VA = Veterans Health Administration; PACE = Program of All-Inclusive Care for the Elderly; FY = fiscal year; APRN = advanced practice registered nurse; MD = physician; HBPC = Home-Based Primary Care; PCP = primary care providers; RN = registered nurse.

definitions created from summarizing the data, and representative quotes that illustrate challenges and how sites overcame those challenges. Across the seven program model types, most of the sites reported a similar pattern of challenges. Ordered from most to least mentioned, the common challenges included (a) HR and Staffing, (b) Infrastructure, (c) Team Dynamics and Processes, (d) Referrals and Marketing, (e) Resources and Geography, and (f) Leadership Perspectives. The Program for All-Inclusive Care of the Elderly model type was the only outlier and most often reported evidence of within the *team dynamics and processes* challenge.

We also compared the challenges for sites active over the entire 3-year period and those that became inactive or closed prior to FY2013 (e.g., the end of grant funding). We found that the 48 active sites and 11 inactive sites both faced challenges mentioned above. However, inactive sites were not able to overcome one or more of

the challenges they faced, and the challenges led to them closing prior to or by the end of the funding period. For example, the challenges by the inactive sites were issues on hiring staff to run the program, team dynamics especially around collaboration within VA networks or with outside VA entities, and leadership support in terms of the program being a low priority for funding given other foci.

The second objective of this study is to identify ways active programs overcame the challenges they experienced over the course of the evaluation. We present this information for each type of challenge below.

HR and Staffing Strategies

The reported HR and staffing issues included staff turnover, constraints with existing staff, and delays in hiring. Sites used various strategies to address these staffing issues.

- **Staff turnover.** Sites overcame staff turnover challenges in several ways from cross-training remaining staff for coverage until replacements were hired, fine tuning or realigning staff to workload and program needs, providing financial incentives or salary increase to attract and retain valued staff, and spending time with staff to address their needs and provide training when necessary.
- **Constraints with existing staff.** Sites used video conferencing technology to enable providers to engage remotely with staff teams at different locations and shared staff across departments.
- **Delays in hiring.** Sites faced with delays in hiring overcame this challenge by way of patience and persistence in the face of slow administrative processes and continued communication with HR.

Infrastructure Strategies

Infrastructure challenges span from management and operations issues, systems and technical needs, to community resources. Sites used a variety of strategies to address these challenges.

- **Management and operation.** Many sites dealt with supply issues by obtaining special funding, getting a credit card for the program service line, and borrowing supplies and equipment from other departments. In addition, one site mentioned working on a policy to enable nurses to have the ability of entering orders, which had in the past limited referrals.
- **Systems and technical needs.** Here, strategies used include finding a resource person to provide knowledge of the VA ordering process, using video technology to manage the increasing demand, and better coordination and communication between sites and their community partner providers for their programs.
- **Community resources.** One site addressed challenges faced with community resources through improved communication with the community partner, specifically through the social worker efforts to establish more collegial cooperation.

Teams Dynamics and Processes Strategies

Communication was the main strategy used to improve teams' dynamics and processes. In particular, some sites kept open lines of communications with program stakeholders such as participants and community partners to obtain feedback and improve processes. Communication for some sites required educating new providers and/or the community partners on aspects of the way the VA provides services in order to improve interactions within program teams and across stakeholders.

Referrals and Marketing Strategies

Referral strategies include bypassing referral providers for direct access to potential participants in a program (e.g., case finding), program promotion, and creating a consult service or a new function in the electronic medical record to remind and ease the referral process on providers. Sites improved *marketing* over time by making connections with other departments through active attendance at meetings, as well as educating staff and patient about their program—including pamphlets and equipment demonstrations.

Resources Allocation and Geography Strategies

The issue of space as a resource was dealt with through remote work, advocating for flex time where staff work longer shifts to reduce days of work, and providing technology (e.g., laptops) so staff could share space more effectively.

Leadership Strategies

Sites mentioned few strategies for overcoming lack of leadership support given that the leadership challenge was the least mentioned over the grant period. One site mentioned using the following strategy: having a program representative participate in rounds and other meetings where leaders were present to increase visibility and attract leadership to their program.

▪ Discussion

This study sought to identify the challenges LTSS programs experienced over the course of a large-scale evaluation and describe strategies sites used to overcome these challenges. We found six challenges influenced implementation of the noninstitutional LTSS programs. We saw little variation in these factors across model types or by active or inactive status suggesting that the challenges were applicable regardless of program type or ability to sustain a program over the grant period.

To date, very little research on program implementation has been conducted outside of the acute care setting, particularly within the LTSS realm. Interestingly, our findings regarding implementation challenges were consistent with the research on program implementation, which has shown that there are certain issues that need to be addressed during program implementation (Bradley et al., 2004, 2005; Damschroder & Lowery, 2013; Feldstein & Glasgow, 2008; Kadu & Stolee, 2015; Tomoaia-Cotisel et al., 2013). For example, research suggests that it is important to have leaders to support implementation and sustainability by

making decisions about resources such as staff time and commitment to the program (Bradley et al., 2004; Ijkema, Langelaan, van de Steeg, & Wagner, 2014). In addition, team dynamics and processes are crucial for gaining internal support for the program, linking the new program with other existing geriatric programs, and otherwise supporting program implementation, which may run into periods where project operations are inefficient (Bradley et al., 2004; Reuben, 2002). Thus, to improve implementation and sustainability of noninstitutional LTSS programs, it is important to work with staff and leadership to understand the value of the program. In addition, the program should advocate for support to deal with challenges within the organization like infrastructure (e.g., HR, resources, and geography). Finally, positive interdisciplinary team dynamics and integration are important for both positive teamwork and coordination through referral and marketing processes that enhance program implementation.

We also presented strategies to overcome each type of challenge, which can aid programs experiencing similar issues. We feel that this is an important contribution to the literature especially because there is very little written about LTSS program implementation. Interestingly, staff reported very few strategies for overcoming leadership challenges. We believe that this may be the case because leadership was the least reported challenge at all time points in the evaluation, and leadership support was initially required for participation in the grant initiative. In addition, throughout the grant period, the sponsor gave sites assistance on how to overcome local leadership resistance by providing training sessions on preparing business plans (including return-on-investment analysis when applicable) and ways to present findings to leadership to garner support for the program. Sites also participated in calls for each model type where problems such as leadership support could be discussed and sites could share best practices and learn from each other.

Upon reviewing the strategies, we think there are three cross-cutting areas in which these sites targeted their strategies including organizational functions and processes (e.g., importance of effective coordination across disciplines via referrals and marketing, staffing), infrastructure (e.g., IT and HR), and program fit with priorities in the organization (e.g., assuring leadership buy-in given multiple priorities). These areas all fall into the health care organization itself and are consistent with ways to provide high-quality health care when the appropriate organizational supports (e.g., OTM drivers) are in place. We hypothesize that this is the case because the GEC T21 initiative already had the OTM drivers in place including an impetus to change health care with the rebalancing of institutional and noninstitutional care in the VA, national leadership support through funding for these programs and strong administrator support for participating sites, program alignment within GEC service in the VA, integration across boundaries be-

cause of the interdisciplinary nature of the LTSS programs, and staff engagement with the programs since the grants were submitted by them. Thus, with the drivers in place, the strategies targeted changing components of the health care system. However, we did see that the most often mentioned cross-cutting strategy was communication. Although the OTM model alludes to the importance of communication for effective change, it was not one of the top drivers in the model. A recent review of implementation literature focused on communication (Manojlovich, Squires, Davies, & Graham, 2015) advocates for the inclusion of communication as a driver of implementation. Our findings suggest that communication was often used to overcome implementation challenges and is a facilitator to implementation.

Several considerations are important when interpreting these findings. Although we assessed a large number of sites and model types, we had a smaller number of key informants at some sites. However, the respondents we spoke to were the most knowledgeable about the programs at their site. Future efforts should incorporate as many staff perspectives as feasible given budget constraints. In addition, this multisite evaluation focused on a process evaluation, not clinical outcomes and costs, which were part of another GEC-sponsored effort (Intrator et al., 2013). Therefore, findings do not address programs' long-term outcomes; rather they provide insight on program implementation and strategies to overcome these challenges. Additional studies are thus needed to assess the impact of GEC programs that has had and continues to have many initiatives rolled out to address the various needs of a diverse Veteran population. For example, in addition to the 59 noninstitutional LTSS programs we assessed, the VA funded another 108 programs through the Transforming VA Care to the 21st Century Strategic Plan. Furthermore, the VA has funded the Veterans Directed Home and Community-Based Program to provide Veterans (and their caregivers) more access, choice, and control over noninstitutional care services working in collaboration with the private sector. This evaluation was conducted in the VA, a large integrated network of hospitals. We believe that the challenges as a whole are applicable to private sector, in particular, results regarding leadership support, team dynamics and processes, and referrals and marketing. Although the VA has specific infrastructure of its own (e.g., IT, HR, contracting), other organizations are faced with their own sets of challenges dealing with various infrastructure or cross-departmental issues that can enable or inhibit program implementation.

Practice Implications

This article's largest practice implication is sharing strategies used to overcome program implementation challenges that can be used by other programs hoping to adopt these

LTSS models inside or outside the VA. We saw that many of the strategies played to the strengths of LTSS programs themselves, that utilize interdisciplinary teams. The strategies we observed are reflective of ways an organization can successfully implement and support LTSS programs including having a strategy that sets its direction and aligns with priorities, effective operational clinical care functions and processes, and infrastructure (IT, HR, facility management) that support patient care (Lukas et al., 2007). Future research is needed to understand the role communication plays as a facilitator of implementation.

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