



ATI Advisory



THE ROLE OF LONG-TERM CARE PHARMACY IN SUPPORTING INDIVIDUALS WITH LONG-TERM SERVICES AND SUPPORTS NEEDS

JULY 25, 2023



ABOUT THIS WORK

ATI Advisory



Long-term care (LTC) pharmacies deliver a set of coordinated services to people requiring long-term services and supports (LTSS). While LTC pharmacies evolved to serve residents in LTC facilities (e.g., nursing facilities), as LTSS delivery has expanded into home and community-based settings, LTC pharmacy services have expanded into these settings as well. However, many policymakers, payers, and other stakeholders may remain unaware of the role LTC pharmacies can play in meeting the complex needs of people experiencing LTC needs¹ or their caregivers, regardless of setting.

The Senior Care Pharmacy Coalition (SCPC) engaged ATI Advisory to conduct case studies profiling LTC pharmacies that have extended services into community settings. This brief profiles the patient populations these pharmacies serve, the pharmacies' relationships with and satisfaction among patients and families, as well as the pharmacies' services, care delivery models, and potential impacts on care costs and quality.

Top-Line Summary

As reported by the LTC pharmacies studied, this research found:

- LTC pharmacy services in the community closely match services LTC pharmacies provide in an institutional setting, including dose-specific packaging, round-the-clock delivery, and medication utilization review. LTC pharmacy services in the community **additionally include patient and family caregiver education and adaptations to individual living environments.**
- The typical community-dwelling patient, living with serious impairments and multiple chronic conditions, is prescribed **eight or more prescriptions at a time by more than five different prescribers.** As a result, the LTC pharmacies frequently identify contraindicated medications among their patients. To address potential adverse outcomes, the LTC pharmacies design and conduct medication therapy management (MTM) specifically around frequent transitions of care and drug regimen changes.
- LTC pharmacies serving community settings rely on value-based arrangements to fund their models and deliver strong performance across cost and quality performance metrics.

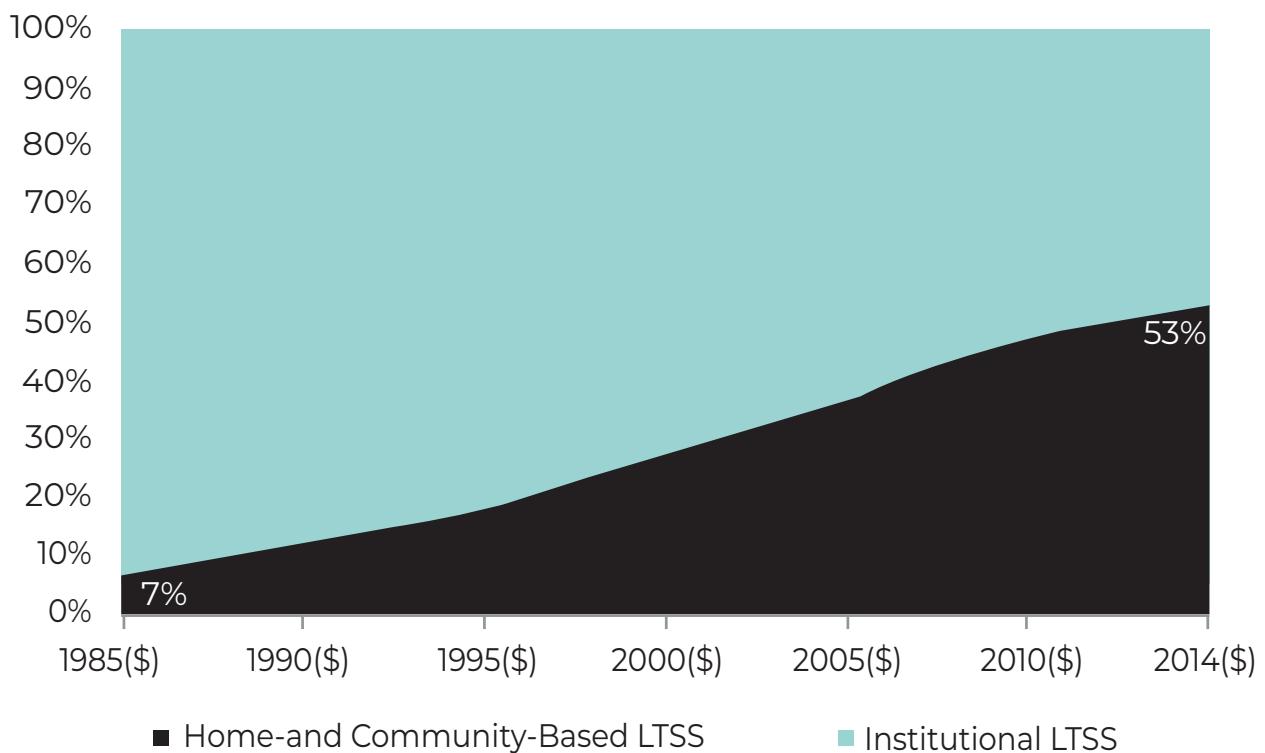
This research illustrates the risks of unmet pharmacy needs among the community-dwelling population experiencing LTC needs, as well as the opportunity to improve care outcomes through innovative service models similar to the LTC pharmacy providers profiled in this brief.

¹In this report, the term "LTC needs" is used to reflect the broad population LTC pharmacies serve. This includes people who require an institutional level of care due to physical, cognitive, behavioral, or other impairments that require support with everyday activities.

INTRODUCTION TO THE ISSUE

In 2021, an estimated 17.6 million people in the U.S. experienced disabilities or functional or cognitive impairments likely requiring assistance with activities of daily living such as bathing, walking, or independently using the bathroom.² Help with these activities often relies on unpaid caregivers (such as family members), paid attendants in the home, or staff in settings like nursing facilities, community-based supportive residences, and daytime care centers. The non-medical services provided to people with disabilities or impairments are often referred to as “long-term services and supports” (LTSS), and people who require these services experience LTC needs. Historically, third-party paid LTSS were provided only in facility settings³ to people with Medicaid coverage, but over the past two decades, LTSS coverage has increasingly shifted to home and community-based settings as policymakers have responded to public preference to age in place. As Figure 1 shows, Medicaid LTSS spending has shifted in recent decades from facility-based services to home and community-based services.

Figure 1. Balance of Medicaid LTSS Spending Shifted to Home and Community Settings Over Time in the U.S., 1985-2014⁴



²ATI Advisory analysis of 2021 American Community Survey microdata from IPUMS USA, based on a combination of self-care disability or two or more of cognitive impairment, mobility impairment, and out-of-home disability. Individuals counted in this definition would not necessarily require LTSS nor necessarily be eligible to receive LTSS through Medicaid.

³Facility settings described in this document include institutional settings of long-term care, such as nursing facilities and institutions for mental disorders. The term excludes non-institutional settings like assisted living and small group home settings.

⁴ATI Advisory analysis of “Medicaid Federal and State LTSS Expenditures, 1985-2014,” Table 1 in Nga T. Thach and Joshua Weiner, “An Overview of Long-Term Services and Supports and Medicaid: Final Report.” U.S. Health and Human Services Assistant Secretary for Planning and Evaluation, May 2018.

People with disabilities or impairments, especially those experiencing LTC needs, frequently suffer from multiple chronic medical conditions that interact with their disabilities, requiring complex care. They and their families must manage complex medical care alongside their non-medical needs and daily challenges. These challenges are pronounced for individuals with cognitive impairments, especially dementia and Alzheimer's disease, that are common among people living with LTC needs. Managing medical care often includes interpreting medical instructions for multiple conditions, managing multiple medications, and performing medical self-care tasks to address chronic conditions and recover from injuries.

A large majority of people (approximately 14 million) with disabilities or impairments have healthcare coverage through Medicare,⁵ and 4.8 million Medicare beneficiaries (8% of all Medicare beneficiaries) were estimated to actively receive support with two or more activities of daily living or live in nursing facilities, in 2019.⁶ Medicare data underscore how high medical needs often intersect with having disabilities or impairments, especially when the disabilities or impairments require help with activities of daily living.⁷ Compared to other Medicare beneficiaries, those who live in nursing facilities or receive help with two or more activities of daily living used higher rates of medical services.

Compared to other Medicare beneficiaries, those living in nursing facilities or receiving support with two or more activities of daily living had:⁸

222% higher hospital admission rates

102% higher emergency department use rates

220% higher average Medicare annual spending

People with disabilities or impairments also tend to have complex pharmacy regimens, which can create additional coordination needs and costs, based on ATI Advisory's analysis of the 2019 Medicare Current Beneficiary Survey.⁹ For example, the typical Medicare Part D enrollee living in a nursing facility or receiving help with two or more activities of daily living takes six prescriptions per day, indicating high rates of polypharmacy. The typical Medicare Part D enrollee living in a nursing facility or receiving help with two or more activities of daily living incurred \$2,268 in Part D spending on prescription drugs, compared to \$750 for other Part D enrollees, in 2019. In addition to managing multiple medications, Medicare beneficiaries living in nursing facilities or receiving help with two or more activities of daily living have multiple provider relationships, seeing an average of five different provider specialties per year. Each provider may prescribe medications without an awareness of the beneficiary's other prescriptions, and providers may be unaware of barriers the beneficiary faces due to their disabilities or impairments. These complex pharmacy regimens, coupled with medical complexity, disabilities, and impairments, result in care coordination needs.

⁵ATI Advisory analysis of 2021 American Community Survey microdata from IPUMS USA.

⁶ATI Advisory analysis of the 2019 Medicare Current Beneficiary Survey (MCBS), with the population of interest identified as those receiving help with two or more activities of daily living or living in a nursing facility, or both. All analyses use CMS-recommended methods for weighting and variance estimation.

⁷The MCBS Medicare analytics in this section of the brief examine experiences among people in nursing facilities or else receiving help with two or more activities of daily living. This is only one way of defining disabilities or impairments. Other forms of LTSS may be needed by individuals who do not receive help with two or more activities of daily living, including vocational supports or help with instrumental activities.

⁸Numbers in this table: ATI Advisory analysis of Traditional Medicare beneficiaries in the 2019 Medicare Current Beneficiary Survey (MCBS). All comparisons are significant at the 5% level using t-tests.

⁹Numbers in this paragraph: ATI Advisory analysis of Part D enrollees (for prescription analyses) and Traditional Medicare beneficiaries (for provider analyses) in the 2019 Medicare Current Beneficiary Survey (MCBS). The median Part D spending comparison is significant at the 5% level using Mood's median test.

ABOUT LTC PHARMACY

LTC pharmacies are distinct from specialty or retail pharmacies in that they focus on people experiencing LTC needs and coordinate across the above-described complex pharmacy regimens and medical complexity. LTC pharmacies offer services specifically based on the complex challenges faced by individuals experiencing LTC needs. In a facility setting, LTC pharmacies provide:¹⁰

- Direct and ongoing consultation with residents and their families.
- Participation in resident care management teams, including directly interacting with and providing recommendations to the facility medical director, nursing staff, and administration. This engagement requires familiarity with residents' medical records and complete prescription drug profiles.
- Medication therapy management (MTM) to prevent over- or under-utilization of prescription drugs and to improve outcomes and reduce costs when medically appropriate. MTM includes comprehensive medication reviews and targeted medication reviews for all LTC beneficiaries.
- Medication reconciliation.
- Direct and ongoing training and contact with facility nursing staff.
- Pharmacist availability to provide medication and patient care services 24/7/365.
- Antibiotic stewardship and infection control.
- Specialized packaging to improve medication adherence and reduce medication errors.
- Access to prescription medications at all times — patients must receive medications within two hours after the pharmacy receives the prescription.

Despite growing emphasis on delivering LTSS in home and community-based settings, LTC pharmacy is rarely provided at home due to longstanding policy and operational barriers.¹¹ For example, the Medicare Part D prescription drug program requires Prescription Drug Plans to contract with LTC pharmacies for services provided to beneficiaries in federally defined LTC facilities, but not for those delivered at home or in community-based settings. Since LTC pharmacies “rely overwhelmingly” on payment from Medicare Part D,¹² and since community reimbursement does not cover the cost of LTC pharmacy services, beneficiaries experiencing LTSS needs are less likely to have access to LTC pharmacy services in the community. By limiting access to LTC pharmacy services based on setting rather than patient characteristics and needs, Part D policies may inadvertently favor institutional LTC settings.

¹⁰ “Prescription Drug Benefit Manual: Chapter 5: Benefits and Beneficiary Protections.” Centers for Medicare & Medicaid Services, September 30, 2011. “CY 2013 Medication Therapy Management Program Guidance and Submission Instructions.” Centers for Medicare & Medicaid Services, April 12, 2012. Excerpted in part from Senior Care Pharmacy Coalition, “Re: Improving Care for Dually Eligible Enrollees,” letter to Senator Bill Cassidy, January 13, 2023.

¹¹ “Expanding Long-Term Care Pharmacy in Home and Community-Based Settings: Understanding and Addressing the Barriers.” ATI Advisory, November 2021.

¹² “Long-Term Care Pharmacy: The Evolving Marketplace and Emerging Policy Issues.” Avalere Health LLC, October 2015.

For example, LTC pharmacy services are aimed at reducing the likelihood of medication errors for individuals experiencing LTC needs. LTC pharmacies offer regular medication review, coordination among prescribers, and person-centered supports for patients and caregivers. LTC pharmacies regularly review all prescriptions for each patient, create an individualized plan to mitigate pharmacy risk, engage prescribers to reduce risks associated with prescriptions, and work with patients and their families to understand their medications and risks. LTC pharmacies also synchronize refills and employ specialized packaging, which aim to improve medication adherence and reduce medication errors. This individualized approach seeks to address complex individual needs, lower the strain on professional and unpaid caregivers to keep track of patients' medications, and account for medical histories that often involve frequent medication changes and high-risk prescriptions (such as those listed by the American Geriatrics Society as potentially inappropriate for older adults¹³). LTC pharmacies update the care plan for patients with every major change in care, and on a regular basis. Taken together, these activities aim to minimize the considerable risk of taking the wrong medication or of disruptions in medication adherence. Non-optimized medications cause 276,000 US deaths per year.¹⁴ In addition, the US spends \$653.4 billion per year on healthcare costs resulting from non-optimized medications, meaning medication combinations and disrupted adherence that can harm patients, with more than half this spending attributable to harmful events resulting in heightened needs for LTSS (including entry into long nursing facility stays).¹⁵

The Hands-On Role of Pharmacy for People Experiencing LTC Needs

For people experiencing LTC needs, medications and medication management can be more complicated than for people who are not experiencing LTC needs. For example, cognitive and functional impairments confound tasks like remembering and taking medications, as do the higher volumes of medications and greater likelihood of disease-drug interactions among people experiencing LTC needs. All of these raise the risk of adherence disruptions or adverse interactions. Greater medical fragility magnifies these harms. LTC pharmacists receive specialized training to manage medication risks specific to living with LTC needs, and to support the people and caregivers who navigate complex medical needs.

A substantial daily task of home care workers and unpaid caregivers is picking up medications, remembering medication warnings, and overseeing the individual taking medications — often more than a dozen — at different times of day and in sync with meals and other medications. The medications also often impact function, cognition, disease management, and the individual's psychiatric condition. Common prescriptions for this group of patients (such as opioids, benzodiazepines, and antipsychotics) have specific side effects for people at older ages or special risks for people experiencing LTC needs. LTC pharmacies deliver prescriptions using courier services, typically on a synchronized refill schedule and with specialized packaging, to address these access and complexity burdens on patients and caregivers.

¹³By the 2023 American Geriatrics Society Beers Criteria® Update Expert Panel. "American Geriatrics Society 2023 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults." *Journal of the American Geriatrics Society*. Accessed June 26, 2023.

¹⁴Watanabe, Jonathan H., Terry McInnis, and Jan D. Hirsch. "Cost of Prescription Drug-Related Morbidity and Mortality." *Annals of Pharmacotherapy* 52, no. 9 (September 1, 2018): 829–37.

¹⁵Ibid.

METHODS

ATI Advisory conducted case study analyses of three LTC pharmacies, each of which offers LTC pharmacy services at home for certain patient populations. ATI used structured interviews with each pharmacy's clinical and operational leaders, supplemented by a review of public and proprietary materials. While each pharmacy provided LTC pharmacy services at home, the degree to which they served patients in other settings varied. In interviews, ATI gauged each organization's services, delivery models, and potential cost and quality impacts in community settings — with an emphasis on how at-home pharmacy services support patients, families, and caregivers. Each pharmacy had its own approach to delivering key LTC pharmacy services in the community. Each also had different experience with at-home programs, ranging from three to 30 years of operation in the community. Finally, each organization serves different patient populations, though all patients experience LTC needs comparable to those served in facility care settings.

1. One serves dual-eligible individuals in community-based group homes, largely serving people living with LTC needs younger than age 65.
2. One serves participants in the center-based Program of All-inclusive Care for the Elderly (PACE), a program exclusively designed for people who require nursing-facility level of care, are ages 55 and older, and can live safely in the community.¹⁶
3. One served patients in the weeks after they return home from a skilled nursing facility post-acute stay. As these patients recover from an acute care episode, they often have either short- or long-term disabilities or impairments, and often experience LTC needs.

¹⁶Sec 1934(a)(5) of the Social Security Act and 42 CFR 460.150(c).

STUDY FINDINGS

SUMMARY

The studied LTC pharmacies reported that their typical home-based patients experience complex pharmacy needs and can benefit from the enhanced services LTC pharmacy organizations provide.

The pharmacies reported that their typical patient is prescribed eight or more prescriptions at a time, has more than five prescribers, experiences cognitive impairment, and has multiple chronic health conditions simultaneously. The studied pharmacies reported serving a patient population at high risk of medication-related harms, acute medical care needs, and inpatient or facility admission. Pharmacy leaders noted that individuals experiencing LTC needs have a higher risk of non-optimized medications, due to more frequent medical events where prescriptions change.

Serving individuals living with LTC needs in community settings can be more challenging, LTC pharmacy leaders noted, because individuals in community settings lack the supports found in facility settings, such as an on-site workforce of medical, nursing, and personal care aide staff. As a result, LTC pharmacy leaders noted the need to adapt to each patient's caregiving arrangements and unique home environment in the community, without the help of a coordinated medical staff caring for the patient.

Pharmacy risks among individuals experiencing LTC needs, based on case studies

1. Individuals experiencing LTC needs are often prescribed so many prescriptions that some prescriptions are dropped during transitions of care, such as at hospital discharge.
2. With a higher frequency of medical events, prescribers often give prescriptions that duplicate or conflict with the prescriptions ordered by other providers.
3. Multiple caregivers may help with filling and administering medications, raising the risk of missing doses and miscommunication with pharmacies and prescribers.

Source: Consensus of case study interviews of three LTC pharmacies.

Studied LTC pharmacies provide ongoing services to caregivers and care teams. These include frequent and ongoing medication utilization review, special dose-specific packaging and delivery, patient and caregiver education, and emergency round-the-clock delivery. Without access to these LTC pharmacy-specific services in the community, individuals experiencing LTC needs would otherwise rely on retail pharmacies or mail-order pharmacies. In the view of interviewed LTC pharmacists, these community pharmacy settings are not designed to manage the complex pharmacy needs of people living with LTC needs at home. Unmet pharmacy needs and potential adverse outcomes may result from the gap between the needs of individuals in the community experiencing LTC needs and the services offered by the typical retail or mail-order pharmacy.

Additional services provided by LTC pharmacies can address problems in prescribing patterns that are common among patients experiencing LTC needs in the community. All studied LTC pharmacies reported they frequently identify contraindicated medications among their patients, often in combination with other medications prescribed by different doctors who serve the individual. All studied LTC pharmacies designed MTM services around transitions of care and around drug regimen changes, addressing the risks facing complex care patients from their more frequent medical office visits, surgeries, and hospital stays.

Studied LTC pharmacies show potentially positive performance in value-based arrangements and report high patient and caregiver satisfaction. Studied LTC pharmacies serving community settings reported relying on value-based arrangements to fund their higher-touch models. All three LTC pharmacies noted improvements to quality targets in value-based arrangements and demonstrated pharmacy or medical cost reductions, or both. In addition, all three organizations reported measurable improvements in patient coordination, reductions in high-risk medication combinations, and high patient, family, and caregiver satisfaction. All interviewees stated that individuals experiencing LTC needs can benefit from LTC pharmacy services, regardless of whether they live in facility- or community-dwelling settings. There has, however, not been a systematic evaluation of the effects of providing LTC pharmacy to individuals living with LTC needs in community settings.

While the methods of service delivery and reimbursement vary between the case studies, LTC pharmacies believe that LTC pharmacy services being provided in the community are appealing to patients experiencing LTC needs, their families, caregivers, and insurers to address problems that arise in the community for patients and their caregivers.

KEY LTC PHARMACY SERVICES EXTENDED TO THE COMMUNITY

Interviewees identified five services unique to LTC pharmacy in the community that potentially improve care for the community-dwelling population experiencing LTC needs:



01

Frequent, thorough medication review by specialized LTC pharmacists



02

Special medication packaging and delivery



03

Medication synchronization



04

Patient and caregiver education



05

Emergency home delivery and round-the-clock pharmacy services

For all five services, LTC pharmacy leverages specialized knowledge and systems from LTSS facility settings, such as knowledge about complex drug interactions when managing polypharmacy, specific considerations to share with caregivers involved in administering medications, and the packaging and delivery processes that best reduce risk of medication mistakes and reduce burdens for caregivers.

MEDICATION THERAPY MANAGEMENT (MTM)

The studied LTC pharmacies all conduct intensive MTM for all patients, looking at the patient's conditions, medical history, and past and current prescriptions. MTM may entail a comprehensive medication review that surveys the patient's medical and prescription history and may entail a targeted medication review that examines the effects and interactions of a single medication to decide whether and how the medication should be used for the patient.^{17,18}

All studied LTC pharmacies reported that the population living with LTC needs at home requires and benefits from especially intensive and frequent MTM services, due to the volume of their medications and frequency of prescription changes. Two of the three conduct MTM services more frequently than Medicare allows. Medicare reimburses for only one review annually regardless of patient need. In addition, all studied pharmacies offer MTM services in more situations than Medicare authorizes, and all were linked to medical providers' electronic health records (EHRs) to gather the full patient history and to assess risks.

The studied LTC pharmacies all intervene when home-based patients have troubling medication risks identified by a MTM services or medication reconciliation. The LTC pharmacies issue medication-change recommendations for prescribers and reported this to be valued by their partnered prescribers.

By engaging prescribers, educating patients and caregivers, and maintaining prescription continuity, MTM services led to interventions that divert from risky prescription combinations to lower-risk prescriptions that are equally safe and effective, reducing individual and insurer costs.

In one case, an LTC pharmacy serving community-dwelling individuals offers pharmacogenomic testing where appropriate to identify which combinations of prescriptions would best treat a patient's condition based on individualized genetics. This service helps address treatment failures where patients are cycling through treatment options or dosages without seeing improvements and helps to reduce the risk associated with the untreated condition.

¹⁷In this document, MTM services are used to describe both MTM and drug utilization review (DUR). Both services entail a review of each of the patient's medications to check for risks and efficacy, in light of the patient's care plan and conditions. Pharmacists providing either service may intervene to resolve concerns.

¹⁸"Medication Therapy Management (MTM) Services." American Pharmacists Association, accessed June 27, 2023.

SERVICE 2:

ATI Advisory



SPECIAL MEDICATION PACKAGING AND DELIVERY

All studied LTC pharmacies reported using special packaging that communicates how to take each of the patient's many medications, groups all drugs together by time of day, and reduces caregiver burden and the risk of mistakes. Caregivers otherwise spend time manually counting medications in medication organizers. The studied LTC pharmacies reported that their at-home patients benefit from adherence packaging that leverage the same packaging systems traditionally used by LTC pharmacies in facility settings designed to improve the efficiency of facility staff while reducing medication errors significantly. Additionally, in all studied LTC pharmacies, home delivery is fulfilled through courier service, which is commonly used by traditional LTC pharmacies but ensures higher rates of successful delivery and ensures that packages are accounted for in delivery. In the home setting as well, the patient and caregiver reportedly benefit from this form of medication packaging and delivery.

SERVICE 3:

MEDICATION SYNCHRONIZATION

Two of the three studied LTC pharmacies implement medication synchronization in their community-based services. Medication or refill synchronization reduces the number of deliveries by ensuring all of a patient's recurring prescriptions are delivered on the same day, reducing the complexity of receiving multiple medications on different days. Both pharmacies with medication synchronization reported timing medication management according to the synchronized refill cycle. Interviewed pharmacists pointed to medication synchronization, paired with courier delivery, as a key tool to reduce failed refills and gaps in prescription supply. By synchronizing refills, LTC pharmacies in the community reduce packaging and deliveries, which reportedly increased pharmacy labor efficiency, according to an operational evaluation from one studied pharmacy.

SERVICE 4:

PATIENT, FAMILY, AND CAREGIVER EDUCATION

All three case studies emphasize how interactions with the patient and caregiver are geared toward education, monitoring, and reducing burden. MTM services and medication reconciliation are seen by the pharmacies as opportunities for education — about what each medication does and how to get the dosing and timing right to prevent potential patient harms from an incorrect dose. The LTC pharmacies encourage caregiver and family participation in pharmacist interactions. Furthermore, the LTC pharmacies stated this special packaging helped ensure that all involved with medication administration can easily learn about appropriate timing and medication needs.

Pharmacy leaders at two of the three organizations considered patient and caregiver education efforts to have the greatest effect in reducing risks. One leader emphasized that non-adherence to medications often results from the complexity and unforeseen circumstances that caregivers and patients must manage. For example, a caregiver may not know what to do when the patient must take medications with food three times a day but has no appetite.

Case studies highlighted that LTC pharmacies' education and counseling for patients, families, and caregivers are associated with better adherence and outcomes.

SERVICE 5:

EMERGENCY HOME DELIVERY AND ROUND- THE-CLOCK PHARMACY SERVICES

Two of the three case studied LTC pharmacies have emergency home delivery of medications during crises, adapted from the emergency medication delivery that LTC pharmacies in facilities traditionally offer. These emergency home delivery programs provide rapid access to medications during emergencies at home, such as to avert an acute medical event. The case studied LTC pharmacies get these emergency medications to the home in just a matter of hours after the prescription order.

The same models also offered 24/7 access to an on-call pharmacist, ensuring that questions about pharmacy needs could be met whenever they arose. This is particularly important for patients with the highest medical risk to limit the potential for prescription-related poor outcomes.

CASE STUDY ONE: LTC PHARMACY SERVING SMALL GROUP HOMES IN ONE STATE

THE GERITOM MODEL

Minnesotans living with LTC needs have the option to receive care in community-based small group homes with about 4-12 residents. For thirty years, Geritom has served the Minnesotans who live and receive services in small group homes, a population of patients who necessarily have skilled facility-level care needs, often have both Medicare and Medicaid, and are younger than age 65.

Geritom provides the group homes' residents with frequent and thorough MTM services that would be unavailable for people receiving similar supports at home who lack an LTC pharmacy relationship. LTC pharmacies in these home settings manage prescriptions for residents and educate residents, their families, and staff about each resident's prescriptions.

To demonstrate and be held accountable to the value of its services, Geritom participates in a Medicaid Accountable Care Organization (ACO). Geritom outcomes data indicate that its services succeed in coordinating care across prescribers, reducing patient harms, and reducing total spending.

Geritom's LTC pharmacy model adjusts traditional LTC pharmacy services to provide services valuable in the home setting. Geritom patients have a high number of medications and impairments that make medication adherence challenging, and Geritom serves a role in the group homes because the homes lack clinical staff to coordinate residents' doctors and prescriptions – a structural difference from the supports in facility settings traditionally served by LTC pharmacy.

To overcome the challenges of serving these settings, Geritom has credentialed LTC pharmacists conduct MTM services, and employs processes to catch conflicting medications and address them consistently across patients. Geritom obtained the URAC Drug Therapy Management pharmacy accreditation for services ensuring "coordinated care, counseling and education, and consumer protection."^{19,20}

Geritom MTM services involve a comprehensive review of patient medical histories, follow-up phone calls to coordinate patient medications across prescribers, and even targeted pharmacogenomic testing to quickly identify the right medication for a patient. In collaboration with families, caregivers, and patients, Geritom surveys the patient's medical history, evaluates changes, and mitigates risks. Geritom's LTC pharmacists are familiar with the unique barriers and strategies for managing complicated prescriptions involved in serving patients experiencing LTC needs.

Geritom MTM services often result in successful medication change recommendations, and prescribers reportedly accept Geritom's change recommendations about 15 times more frequently than the industry average.

Geritom services reach 12,000

individuals receiving LTSS in

1,800 small group homes, coordinating with

10,000 prescribers.

The typical Geritom patient has **20+** prescriptions and **5+** prescribers.

All Geritom patients are community-dwelling while requiring a facility level of care under state law.

¹⁹Geritom Medical is accredited by URAC for Drug Therapy Management (DTM)." Geritom Medical.

²⁰Pharmacy Services Accreditation v1.0." URAC, accessed June 27, 2022.

KEY FINDINGS

Care coordination	Education	Outcomes
<p>Care coordinators: Geritom coordinates care through MTM services. Care coordinators help to identify and coordinate all the patient’s medications, medical history, and providers. Geritom connects to the state’s health information network and to group homes’ data systems to review a full patient history.</p> <p>Pharmacogenomics: To facilitate faster treatment success for patients failing to respond to multiple therapy options, Geritom has pharmacogenomic testing that uses genetics to identify the medication option that will work best for the patient’s genetics and metabolism.</p>	<p>Counseling: Counseling for patients, their families, and nursing staff to manage the many medications identified during MTM services. This includes education about what to expect from new prescriptions, especially as prescriptions change during transitions of care. Education for family and caregivers aims to enable them to reinforce patients’ medication adherence. Geritom invites families to all MTM sessions, and families attend one in four MTM sessions.</p> <p>Adherence: To improve adherence and reinforce education, Geritom uses special adherence packaging as well as an automatic text-message medication reminder system for patients and caregivers. Medication synchronization allows for fewer deliveries and, according to Geritom, reportedly reduces failed refills and gaps in care</p>	<p>Customer Satisfaction: About 90% of patients gave Geritom the highest possible rating for its pharmacy’s accuracy, clear labeling, education, and on-time delivery.²¹</p> <p>Lower Utilization: Geritom estimated that 8% of interventions sent to prescribers resulted in averted emergency departments or hospitalizations.</p> <p>Successful Interventions: Specialists accept 80% of Geritom recommendations, compared to a 5% rate among others in the industry. On average, Geritom sends three interventions to providers per CMR.</p> <p>Lower cost of care: Geritom estimates each CMR saves \$1,167, by decreasing medication costs and averting hospitalization and emergency department use.</p>

²¹Geritom data summarizing customer satisfaction surveys of Geritom patients, created by a third-party consumer survey company, reviewed by ATI Advisory.

INTERVENTION HIGHLIGHT: LTC PHARMACY SHOWS COORDINATED MODEL REDUCES ADVERSE EVENTS, SPENDING, AND STRAIN WHILE BOOSTING SATISFACTION

Geritom has high customer satisfaction levels, high market penetration among Minnesotans residing in group home settings, high rates of prescribers accepting Geritom medication-change recommendations, and favorable evaluation data indicating success in averting emergency department and hospital events.²²

Geritom's outcomes data indicate that its LTC pharmacy services improve quality measures and reduce costs for individuals receiving LTSS in settings not traditionally served by LTC pharmacies. Geritom's outcomes for patients, collaboration with other providers, and customer satisfaction all highlight the opportunity of LTC pharmacy to serve supportive residential settings. Geritom leverages key LTC pharmacy services to reduce caregiver burden, coordinate medical care, and minimize medication risk for people living in the community with LTC needs.



²²Utilization analysis of Geritom patients compared to a comparison group of patients in the same health system, as reported in data provided by Geritom and created by a third-party analytics company.

CASE STUDY TWO: LTC PHARMACY SUPPORTS FOR PATIENTS RECOVERING AT HOME AFTER A SKILLED NURSING FACILITY STAY

THE NAVIGATOR RX MODEL

When Mainers receive LTSS at home, they typically cannot access the higher touch LTC pharmacy services they would otherwise receive in nursing facility settings. The Navigator Rx program aims to fill this gap during post-acute care transitions. Launched in 2017 by Maine Veterans' Homes (MVH) Pharmacies, affiliated with a non-profit nursing facility operator, Navigator Rx ensures that Mainers transitioning from skilled nursing facilities (SNFs) to home have an LTC pharmacist reviewing and simplifying their medications. Medications often change multiple times during a hospital and SNF stay.²³ The LTC pharmacist takes steps during this review to mitigate risks in the patient's recent medication changes. Among Navigator Rx patients, 27% had one or more medication issues identified by the LTC pharmacists.²⁴

As the patient returns home from a hospital stay, often to their families and other unpaid caregivers, Navigator Rx pharmacists educate the patient and caregivers about what their medications do and how and when to take them to reduce the risk of medication-related harms that could cause a readmission to the hospital. MVH reported the program improved SNF quality measures and appealed to patients by helping them more easily navigate a stressful care transition.

This at-home model builds on the coordination that MVH's facility-based LTC pharmacies provide patients during other transitions of care, such as when SNF patients are admitted to the hospital and when nursing facility residents "step down" from a post-acute stay to a long stay in the nursing facility. During these transitions of care, MVH reviews the patient's medical history, hospital discharge orders, and full medication list from before and after the hospital stay. MVH establishes a medication plan for the SNF stay, including thorough medication review and monitoring.

Under the Navigator Rx program, when a SNF patient discharges home, MVH's LTC pharmacy conducts an MTM service, performs medication reconciliation, and educates the patient, family, and caregiver on the patient's medication risks. Based on this counseling, Navigator Rx pharmacists establish a plan for adhering to the medication regimen and monitoring side effects. Pharmacists follow up with patients in the one to two days after discharge, giving Navigator Rx visibility into the immediate changes after discharge.

Through Navigator Rx, MVH achieved a significant reduction in 30-day readmissions, falling from 29% in the year before program launch to 10% in Navigator Rx's first year.²⁵ and MVH is now considering growing the services provided by Navigator Rx, in addition to the variety of community settings served by MVH's LTC pharmacy business.

Navigator Rx reaches 1,000 individuals transitioning home from SNF. 30% to 40% of SNF-to-home transitions typically result in readmission, with ~65% of these cases caused by medication errors. MVH operates nursing facilities, assisted living communities, and long-term care pharmacies in six locations across Maine. MVH exclusively serves veterans and their families in its nursing facilities.

²³ Medications typically change when a patient goes from the community to the hospital, and again during the transition from the hospital to the post-acute provider.

²⁴ MVH Pharmacies operational data reviewed by ATI Advisory.

²⁵ MVH Pharmacies quality improvement data reviewed by ATI Advisory.

KEY FINDINGS

Care coordination	Education	Outcomes
<p>Medication Reconciliation: LTC pharmacists review, reconcile, and simplify the medication regimen of SNF patients to mitigate risks, doing so at multiple transitions of care including discharge to home.</p> <p>Review: MVH conducts full MTM services at SNF admission, creating individualized medication plans that follow the patient into the post-SNF transition Navigator Rx program.</p> <p>Post-SNF Follow-up: Navigator Rx includes a MTM service with medication reconciliation at discharge from SNF to home.</p>	<p>Caregiver and Family Check In: During the follow-up after patients return home, MVH pharmacists check on patients, families, and caregivers to monitor symptoms and educate all involved. For patients discharged to senior living communities, MVH coordinates with and educates senior living staff.</p> <p>Education: MVH ensures that all people involved in the patient's recovery understand what new medications began during the stay, what their purpose is, and how they might interact with other medications.</p>	<p>Readmissions to Hospital After Arriving Home: Maine Veteran's Home estimates the program reduced their SNF patients' 30-day hospital readmission rate by 23%. This suggests LTC pharmacy in the home reduced SNF patients' medical crisis risk and may have lowered medical spending.</p> <p>Performance Payments for Skilled Nursing Facility: Lower readmission rates among patients meant higher payments for MVH SNFs. MVH's model attracted interest in LTC pharmacy for patients of other SNFs in the region.</p>

INTERVENTION HIGHLIGHT: SHORT-TERM ENGAGEMENT OF PATIENT AND CAREGIVER WITH KEY LTC PHARMACY SERVICES IMPROVES POST-ACUTE OUTCOMES

MVH leadership sees the patient, family, and caregiver education as the most important component of the program for improving patient outcomes. MVH reported that by engaging families and caregivers, Navigator Rx pharmacists gained valuable information about the patient's use of the medication, related medical history, side effects, and adherence challenges, beyond what pharmacists normally see in patient records.

Navigator Rx lowered the rate of unplanned hospital readmissions among its participants,²⁶ achieving quality incentive payments for SNFs that made the program financially viable and promoting the "triple aim" of improved access, quality, and cost. Other local SNF operators have reportedly expressed interest in leveraging MVH's program for their own SNF patients who discharge to home.

²⁶MVH Pharmacies quality improvement data reviewed by ATI Advisory."

CASE STUDY THREE: LTC PHARMACY SERVING PROGRAM OF ALL-INCLUSIVE CARE FOR THE ELDERLY (PACE) ORGANIZATIONS

THE GRANE RX MEDS2HOME MODEL

Grane Rx serves PACE participants, who are all individuals living at home who have opted into a center-based medical and LTSS service delivery model. Most PACE participants have both Medicare and Medicaid. A PACE organization bears 100% of risk for all Medicare- and Medicaid-covered services, ranging from emergency department visits and hospital stays to personal care aide services and 24/7 nurse visits.²⁷ PACE organizations also operate a Part D plan for their enrollees and cover all remaining out-of-pocket prescription expenses.

PACE organizations are required to provide pharmacy services to participants as a covered benefit. However, because PACE organizations bear full financial risk for all Medicare and Medicaid services, PACE organizations have the flexibility and incentives to optimize medication management in the most clinically and operationally effective way. With its Meds2Home LTC pharmacy model for PACE launched in 2006, Grane Rx has reviewed, optimized, fulfilled, and delivered prescriptions for participants of a growing clientele of PACE organizations. A 2021 case study by Cardinal Health found that Grane Rx's Meds2Home model reduced PACE operational costs, enhanced pharmacy service, and improved quality of service.²⁸

Grane Rx reduces the medication burden on PACE participants and their families, caregivers, and PACE organizations by providing more frequent MTM services and through automated systems that notify pharmacists of high-risk or high-cost medications. The Meds2Home model connects to the PACE organizations' electronic health records to enable this ongoing review of participants' medication risks.

Through the Meds2Home White Glove courier medication delivery program, couriers check on PACE participants' wellbeing and serve as a conduit between the home, PACE staff, and LTC pharmacists. PACE participants experiencing a crisis that requires new medications have faster access to emergency medication through Grane Rx's White Glove delivery system than through the standard care (such as FedEx or USPS), according to Cardinal Health.

The Grane Rx geriatric-trained clinical consultant pharmacists provide MTM services at least every six months, making medication recommendations directly with the PACE care team in advance of a six-month assessment of the PACE participant. Those LTC pharmacists work with the care team to issue medication-change recommendations and reduce risk. Additionally, the Grane Rx clinical consult pharmacists work with the care team to counsel and educate providers, participants, caregivers, and family members about changes in prescriptions and daily medication administration tasks.

Where possible during the MTM service, the Grane Rx clinical consultant pharmacists recommend simplified dosages and timing, like consolidating medications to just two times of day from four (important for PACE participants who oftentimes leave their homes midday for center-based services). The LTC pharmacy uses special adherence packaging in any of 31 languages with clear indicators of when and how to take medications. Grane Rx couriers are trained to address the special needs of PACE participants, providing constant contact with the PACE organization on delivery status, especially emergency deliveries. A delay in emergency deliveries could lead to an emergency department visits or hospital admissions.

Grane Rx Meds2Home reaches 12,000

individuals who receive care at home in the PACE program, which serves people requiring LTSS. The typical Meds2Home patient has **12+** medications and **8+** chronic conditions and may live at home or in assisted living. Meds2Home supports PACE organizations and their care teams by delivering LTC pharmacy in the community.

²⁷ Sec. 1934(b)(1) of the Social Security Act.

²⁸ "Grane Rx and Innovative Integrated Health (IIH) Pharmacy Case Study." Cardinal Health, July 2021.

KEY FINDINGS

Care coordination	Education	Outcomes
<p>Full Medication Regimen Review: Grane Rx’s Meds2Home clinical consultant pharmacists review all medications at least every six months, working with the PACE team to adjust medications to reduce risks. Meds2Home connects to the PACE organization’s electronic health records to conduct cross-setting medication regimen reviews and to create automated alerts.</p> <p>Continuous Medication Reconciliation: Meds2Home coordinates care across specialists continually, to track, optimize, and fulfill medication changes. Meds2Home LTC pharmacy systems automatically notify pharmacists of new high-risk prescriptions, flagging when pharmacists might intervene to recommend lower-risk options.</p>	<p>Simplepac Medication Packaging: Grane Rx simplifies the medications and dosage by packaging medications for each 28-day cycle rolled up in just one box, on a synchronized refill schedule. To serve differences in literacy and language, the box has a visual guide to each pill with guidance and photos of each medication, individualized and available in 31 languages. Each boxed roll has tear-off pouches containing all medications for each time of day, each day.</p> <p>White Glove Delivery: Trained couriers check in with the participant or family member to ensure medication delivery and facilitate discussions about their wellbeing and medications. Couriers are trained to support participants and have even intervened in emergencies during drop-off.</p>	<p>Operations: Grane Rx’s LTC pharmacy reduced labor costs and simplified medication distribution efforts for PACE organizations.</p> <p>Medication Risks: At one PACE organization, Grane Rx delivered 97% of high-priority medications in 4 hours or less, an improvement from next-day delivery before Grane Rx served the PACE organization.</p>

INTERVENTION HIGHLIGHT: LTC PHARMACY PROVIDES OPERATIONAL EFFICIENCIES, CAREGIVER SUPPORT, AND AN INTEGRATED AT-HOME EXPERIENCE

Meds2Home’s services, ranging from participant and caregiver supports through delivery, MTM services, and adherence-friendly packaging, reportedly reduce family and caregiver burden while reducing prescription risks from the many specialists involved in caring for PACE organizations’ facility-eligible participants with an average of 12 medications and five chronic conditions.

Moreover, Grane Rx’s growth to serve PACE organizations nationwide indicates that these fully risk-bearing organizations see value in the Meds2Home’s at-home LTC pharmacy delivery and special packaging services, the comprehensive services provided during the six-month PACE reassessment, and through ongoing monitoring and reconciliation. PACE organizations have both medical and non-medical staff on the care team, and Grane Rx demonstrates how LTC pharmacy can work in tandem with LTSS providers and medical care teams in the community to deliver valuable pharmacy services efficiently, reducing burdens for participants, families, and caregivers.

CONCLUSION

The LTC pharmacy case studies profiled in this report demonstrate the emerging but constrained role of LTC pharmacies in community settings. By adapting to the diverse challenges facing patients experiencing LTC needs, LTC pharmacies can provide more comprehensive pharmacy services than are otherwise available in the community. The LTC pharmacies manage the increased complexity of individuals living with LTC needs in the community by extending key LTC pharmacy services such as caregiver education, specialty packaging, medication synchronization, 24/7 support lines, and emergency delivery.

The performance of these LTC pharmacies in value-based arrangements demonstrates the potential for improvements on quality measures and reduction in costly services. High satisfaction levels reported by patients, families, and caregivers further emphasize the impact of LTC pharmacy services — at least when LTC pharmacy is tailored to the complex needs of those living with LTC needs in the community.

However, systematic evaluation of LTC pharmacy services in community settings is necessary to validate these early promising results, as more people experience LTC needs while living longer and remaining in their homes and communities. These case studies highlight how LTC pharmacy may benefit multiple types of payers, patient types, and caregivers. Despite variations in service delivery and constraints in reimbursement for LTC pharmacy services in community settings today, these case studies reveal the potential of LTC pharmacies in offering integrated, patient-centered care in these settings.

