



How Health Systems Can Leverage Unity Global Care's ALBERTai to Transform Aging in Place: Reducing Readmissions, Cutting Costs, and Extending Clinical Care Beyond Discharge

By Dr. Thomas M. Gill, Yale School of Medicine & David S. DuPlay, Co-Founder & CEO Unity Global Care Inc.

The Post-Discharge Black Box

Hospital discharge is one of the most consequential and most underserved transitions in modern healthcare. A patient with congestive heart failure, chronic obstructive pulmonary disease, or a recent hip fracture leaves the facility with a carefully crafted discharge plan, a medication reconciliation, and a follow-up appointment scheduled for two weeks out. The clinical team has done everything the current system asks of them. Then the patient goes home. And the health system goes blind.

What happens in that home environment whether the patient is sleeping, eating, moving, adhering to their medications, and managing their symptoms in ways consistent with the discharge plan is, for most health systems, essentially invisible. Subtle changes in functional status, medication adherence, cognition, or mobility that would be immediately actionable in an inpatient or outpatient setting can go undetected for days or weeks. The cost of that invisibility is measured in emergency department visits, preventable readmissions, functional regressions, and the financial penalties that flow directly and predictably from them.

The numbers are significant enough to demand executive-level attention across every health system in the country. The Centers for Medicare & Medicaid Services reports that approximately one in five Medicare patients is readmitted to the hospital within 30 days of discharge, at an average cost of between \$15,000 and \$25,000 per episode, with the Medicare program spending more than \$26 billion annually on hospital readmissions. Under the Hospital Readmissions Reduction Program, CMS reduces

payments to hospitals with excess readmission rates for conditions including acute myocardial infarction, heart failure, pneumonia, chronic obstructive pulmonary disease, hip and knee arthroplasty, and coronary artery bypass grafting with aggregate penalties exceeding \$500 million annually across the hospital sector. These are not marginal financial risks. For health systems operating on thin margins in an increasingly value-based payment environment, they represent material exposure that demands a structural solution, and that is precisely what ALBERTai, the artificial intelligence platform developed by Unity Global Care Inc., was designed to provide.

A Structural Solution to a Structural Problem

The post-discharge visibility gap is a structural problem, and it requires a structural solution. The standard toolkit of discharge planning, printed instructions, pharmacist counseling, follow-up appointment scheduling, and periodic check-in phone calls was designed for a healthcare environment that no longer exists at the scale or complexity that today's aging population demands. As the number of older adults managing multiple chronic conditions continues to grow, and as value-based care arrangements continue to shift greater financial risk onto health systems, the inadequacy of that toolkit becomes an increasingly costly reality.

ALBERTai was designed specifically to address this gap by functioning as a unified intelligence layer that integrates every stream of observational, behavioral, physiological, nutritional, psychosocial, and functional data generated in the home care environment including sleep patterns, mobility, appetite, cognitive function, medication adherence, mood, balance, and strength into a single, continuously updated, and proactively actionable picture of each patient's functional trajectory. Rather than generating isolated snapshots, ALBERTai builds a longitudinal health biography for each patient, capturing subtle changes weeks or months before they manifest as clinical events and translating that data into clear, timely, and actionable guidance that reaches the right clinical team members at the right moment. For health system leaders, this represents something genuinely new in the post-acute care landscape: the ability to maintain meaningful clinical surveillance of discharged patients not as a documentation exercise, but as a living, learning, and continuously actionable extension of clinical care itself.

The ALBERTai Aging-in-Place Score®: Outcome Intelligence at Scale

Central to ALBERTai's value proposition for health systems is the multi-patent pending ALBERTai Aging-in-Place Score®, a continuously updated composite indicator that synthesizes multiple streams of patient-level data, including physical health biomarkers, cognitive function indicators, mobility and strength assessments, sleep quality, appetite, medication adherence, and overall functional stability into a single, clinically meaningful metric that care managers, discharge planners, and clinical teams can monitor and act upon in real time.

Unlike a point-in-time assessment conducted at a clinic visit or a post-discharge phone call, the Aging-in-Place Score reflects longitudinal trending, tracking not just where a patient is today but whether their functional trajectory is stable, improving, or declining in ways that predict future clinical events. For health systems, this has two critical and complementary applications that together transform the economics and quality of post-acute care.

The first is early warning and intervention. A patient whose Aging-in-Place Score begins to decline following discharge even subtly, even weeks before a clinical event would become apparent to a home health aide or family caregiver is generating an actionable signal that can trigger proactive clinical outreach, medication review, care plan adjustment, or physician consultation before that decline progresses to an emergency department visit or readmission. This is the fundamental difference between predictive care management and reactive crisis response, and it is a difference measured not only in patient outcomes but in avoided costs and penalties.

The second application is real-world outcome evidence. A patient whose Aging-in-Place Score stabilizes or improves following the implementation of a post-acute care plan is providing real-world evidence of care plan effectiveness longitudinal, multidimensional, ecologically valid outcome data that no claims database, patient-reported outcome measure, or physician documentation can match in granularity or clinical significance. As health systems face increasing pressure from CMS, commercial payers, and accreditation bodies to demonstrate longitudinal patient outcomes rather than process compliance, this type of continuously generated, patient-level outcome data is not merely useful. It is strategically essential.

The Financial Case: Readmissions, Penalties, and Value-Based Performance

The financial implications of effective post-discharge monitoring for health systems operating under value-based care arrangements are substantial and well-grounded in published data. Since its implementation under the Affordable Care Act, the Hospital Readmissions Reduction Program has reduced Medicare payments to thousands of hospitals annually for excess readmissions. In fiscal year 2023, 2,273 hospitals faced HRRP payment reductions, with aggregate penalties exceeding \$500 million. The conditions targeted by the program heart failure, pneumonia, COPD, acute myocardial infarction, hip and knee arthroplasty, and coronary artery bypass grafting are precisely the conditions most prevalent among the aging adult population that ALBERTai was designed to monitor continuously and proactively.

CMS data on the Medicare Shared Savings Program and Accountable Care Organizations demonstrates that coordinated, proactive care management for high-risk populations, including robust post-discharge monitoring is among the most effective documented strategies for generating shared savings and improving quality performance. ALBERTai provides the continuous monitoring infrastructure that enables

ACOs to extend that care management capability into the home environment where the majority of clinical events among aging adults actually occur.

The Agency for Healthcare Research and Quality reports that the average cost of an emergency department visit in the United States exceeds \$1,200, with visits resulting in admission averaging more than \$3,300 in facility costs before inpatient charges are applied. Among adults aged 65 and older, fall-related emergency department visits alone account for more than \$50 billion in annual direct medical costs. Every prevented emergency department visit represents direct cost avoidance for health systems operating under capitated or risk-sharing payment arrangements, and the cumulative impact of preventing even a fraction of those visits across a post-acute patient population represents a material financial return on investment in continuous monitoring infrastructure.

With Medicare Advantage enrollment now exceeding 30 million beneficiaries, health systems and physician groups bearing risk under Medicare Advantage contracts have a direct and growing financial incentive to reduce emergency department utilization and inpatient admissions for their aging adult populations. ALBERTai's continuous monitoring and early intervention capabilities represent a scalable infrastructure investment with measurable impact on total cost of care across exactly the population that drives the most utilization and the greatest financial exposure in the Medicare Advantage environment.

The Population Health Imperative: Aging in Place at Scale

The demographic reality driving ALBERTai's relevance to health systems extends well beyond any single patient or episode of care. The United States is in the midst of an aging population surge that has no historical precedent in its scale or speed. By 2030, all members of the Baby Boom generation will be 65 or older, representing more than 73 million Americans. By 2034, for the first time in the nation's history, older adults will outnumber children under the age of 18. The overwhelming preference of this population consistently reported across decades of survey data is to remain at home for as long as possible, managing chronic conditions, recovering from acute episodes, and preserving independence within a familiar environment rather than transitioning to institutional or facility-based care.

This preference is not simply a matter of personal sentiment. It carries profound implications for health systems responsible for managing the care and containing the costs of a population that is simultaneously living longer, carrying a higher burden of chronic disease, taking more medications, and generating more complex care needs than any previous cohort of older adults in American history. For health systems that accept financial risk for this population whether through Medicare Advantage contracts, accountable care arrangements, bundled payment programs, or direct capitation the ability to monitor, support, and proactively intervene with aging adults in their home environments is not an optional enhancement to the care delivery model. It is a fundamental operational requirement.

ALBERTai meets that requirement by turning the home into a site of continuous, intelligent clinical observation. Through its integrated platform, caregivers and clinical teams receive a living picture of each patient's day-to-day functional reality not a monthly snapshot or a quarterly assessment, but an ongoing, automatically updated record of how the patient is actually living, moving, eating, sleeping, thinking, and managing their health. This kind of real-time population-level visibility allows health systems to stratify patients by risk, target their most intensive care management resources toward those with declining trajectories, and intervene early enough to change outcomes rather than simply document them.

Extending the Clinical Team Into the Home

One of the most consequential limitations of the current post-acute care landscape is the degree to which the clinical team's ability to observe, assess, and respond effectively ends at the hospital or clinic door. Home health agencies provide episodic visits. Primary care physicians schedule follow-up appointments that may be weeks away and that capture only a brief, often atypical moment in the patient's daily reality. Family caregivers observe far more than any professional, but they lack the clinical training to interpret what they see, the tools to communicate it efficiently, and the organizational authority to act on it. The result is a care environment characterized by fragmented observation, delayed communication, and missed opportunities for early intervention.

ALBERTai changes this dynamic by functioning as a continuous, intelligent bridge between the home environment and the clinical team. The platform aggregates data from caregivers, sensors, and patient interactions across every day of care, analyzes that data against each patient's individual baseline and longitudinal trajectory, and generates proactive alerts and care guidance that reach the right member of the clinical team in time to act. A caregiver who notices that a patient has been eating less, sleeping more, and moving less confidently than usual now has a mechanism not only to record that observation but to have it analyzed in the context of a week's worth of longitudinal data, compared against clinical thresholds, and escalated automatically if the pattern is consistent with a deteriorating trajectory. The clinical team, in turn, receives not a raw data feed but a synthesized, actionable signal, a clear indication that this patient needs attention today, and a structured summary of the evidence supporting that conclusion.

This capability has particular value in the context of the post-discharge period, when the risk of clinical deterioration is highest and the opportunity for early intervention is greatest. Research consistently shows that the majority of preventable readmissions involve a period of detectable clinical decline in the days preceding the emergency department visit, a period during which early intervention could have altered the outcome. ALBERTai is designed to make that period of decline visible, interpretable, and actionable in ways that the existing toolkit of post-discharge care simply cannot.

A Platform Built for Health System Integration

ALBERTai was developed with the operational realities of health system deployment in mind. The platform is designed to integrate with existing electronic health record systems, care management workflows, and population health platforms, enabling health systems to extend their existing clinical infrastructure into the home care environment rather than building a parallel and disconnected system. Discharge planners can configure patient monitoring protocols at the point of discharge, establishing individualized alert thresholds and care escalation pathways based on each patient's clinical profile, risk factors, and discharge plan. Care managers receive a consolidated dashboard that surfaces the patients most in need of attention, sorted by declining trajectory and risk level, enabling efficient deployment of clinical resources across a large post-acute population. Physicians receive structured, data-supported communications that describe changes in patient status in clinical terms, enabling rapid and informed decision-making without requiring direct review of raw caregiver data.

For health systems operating at scale, managing thousands of discharged patients across a regional population this kind of structured, intelligent integration is not a convenience. It is the difference between a monitoring capability that meaningfully affects outcomes and one that generates data without actionable impact. ALBERTai was designed from the ground up to be the former: a platform that does not simply observe but interprets, prioritizes, and guides turning the volume of data generated in the home care environment into a concentrated, clinical-grade signal that drives better decisions and better outcomes at every level of the care continuum.

The Strategic Case for ALBERTai

The case for ALBERTai within a health system is, at its core, a case about alignment, alignment between what health systems are financially accountable for and what they are currently capable of seeing and managing. Today, health systems bear increasing financial responsibility for the outcomes of their patients long after those patients have left the building, yet they operate with almost no visibility into the home environment where most of those outcomes are actually determined. That misalignment is not a failure of effort or intention. It is a structural gap in the care delivery model, and it demands a structural solution.

ALBERTai closes that gap. By transforming the home care environment into a continuous source of clinically meaningful, actionable outcome intelligence, the platform enables health systems to protect revenue, reduce readmission penalties, improve performance under value-based contracts, and deliver genuinely better care to the aging adult population that represents their most complex, highest-cost, and fastest-growing patient segment. As the demographic pressures driving that complexity continue to intensify, and as the financial accountability of health systems for post-acute outcomes continues to expand, the strategic value of that capability will only grow. ALBERTai is not a response to today's challenges alone. It is an infrastructure investment in the health system of tomorrow, one where the care team's reach extends

as far as the patient's need, and where the gap between discharge and recovery is not a black box but a managed, monitored, and continuously improving continuum of care.

About the Authors:

Dr. Thomas Gill, Yale School of Medicine

Dr. Thomas Gill is a physician at Yale who specializes in caring for older adults and studying how to help people stay healthy and independent as they age. For more than 30 years, his research has focused on understanding why older individuals develop difficulties with everyday activities and, importantly, how to prevent or delay those changes.

He leads major research programs at Yale that follow people over time and test new approaches to maintain strength, mobility, and quality of life. His work has helped shape how doctors and scientists think about aging, disability, and independence.

Dr. Gill has published extensively and received many honors for his contributions. At Yale, he also directs key programs devoted to aging research and the health of older adults. Dr. Gill has led and contributed to groundbreaking epidemiologic research, clinical trials and other aging initiatives. His work has been widely recognized with prestigious awards and leadership roles across Yale and the broader aging research community.

David S. DuPlay, Co-Founder & CEO Unity Global Care

Dave brings a uniquely informed perspective to the conversation around aging, technology, and compassionate care. A patient advocate, entrepreneur, and seasoned healthcare strategist with more than 30 years of experience working alongside medical professionals, research organizations, and patient communities across virtually every disease area, Dave has dedicated his career to aligning the goals of all healthcare stakeholders in service of better patient outcomes. As Chairman of Vital Options International, a global health foundation founded in 1983 and committed to health education, advocacy, and financial assistance for patients in minority and underserved communities worldwide, Dave understands firsthand the human stakes embedded in every healthcare decision.

A recognized author and speaker on the challenges facing vulnerable populations, Dave is a passionate believer that technology, when thoughtfully applied, has the power to close gaps in care, amplify the voices of those too often left behind, and preserve the dignity of aging individuals and the families who love them. It is through this lens that Dave Co-Founded Unity Global Care Inc., to bring the ALBERTai eco-system to families and providers, not merely as tools of convenience, but as meaningful instruments of empowerment for some of the most emotionally complex moments families will ever face.