Home-based Acute Care Getting Started Guide:

A reference for designing and implementing acute home-based clinical care models for older adults

Institute for Healthcare Improvement

westhealth

Getting Started Guide co-developed by West Health Institute (WHI) and Institute for Healthcare Improvement (IHI). Home-based Acute Care Learning and Action Network funded by West Health and convened by IHI in collaboration with WHI

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Executive Summary

Traditional pathways for acute care events largely end with emergency department visits and hospital admissions. Although this is an appropriate course of action to receive life-saving evaluations and treatments, for older adults, an emergency room visit or hospital stay can have serious drawbacks. Due to the lack of familiarity with older adult patients, it can be difficult for hospital staff to discern baseline conditions from indicators of significant change in condition, potentially imposing setbacks.

There need to be options available to evaluate and treat exacerbations of chronic conditions in the home and community, therefore reducing the reliance on hospital-based facilities. It has been well studied that the home is where quality of life can best be maintained for older adults, particularly the most vulnerable and frail. Home-based acute care redesign options should include a spectrum of options from remote monitoring for early detection to on-demand response to improve coordination of longitudinal and continuous care.

To help identify hospital-alternative care pathways for unplanned acute events, West Health Institute and the Institute for Healthcare Improvement (IHI) collaborated with health care organization teams across the country. The establishment of these learning networks have allowed us to gain further insight into the complexity of healthcare models and are leading our teams closer to finding the most efficient and effective way to treat older patients in their own homes.

West Health and the Institute for Healthcare Improvement

West Health is a nonpartisan, non-profit family of organizations whose mission is to lower health care costs to enable seniors to successfully age in place with access to high-quality affordable health and support services that preserve their dignity, quality of life and independence. The three West Health entities — West Health Institute (WHI), West Health Policy Center, and West Foundation — work to create new integrated care models that improve health outcomes and address both the medical and non-medical needs of seniors and their families. WHI engages in applied research to advance the West Health mission.

Institute for Healthcare Improvement (IHI) is a leading innovator in health and health care improvement worldwide. For 30 years, IHI has partnered with visionaries, leaders, and front-line practitioners around the globe to spark bold, inventive ways to improve the health of individuals and populations.

Background on the Learning and Action Networks

A collaboration between WHI and IHI was born in 2017 with the convening of six Next Generation Accountable Care Organizations that addressed new responses to unplanned acute events. This collaboration was called the Unplanned Acute Events Learning and Action Network (UAELAN). It aimed to create and test new models of caring for older adults that reduced cost of care and improved quality. WHI and IHI expanded on their UAELAN experience in 2019 to embark on a new 12-month learning and action network called HomeLAN. Thirteen health care organizations (including those from UAELAN) came together to develop safe, patient-centered, home-based alternatives that reduce the need for emergency room visits and hospitalizations when acute events occur. HomeLAN teams focused on testing innovations to disrupt the default trajectory of unplanned acute events in older adults that ultimately result in hospitalizations.

The HomeLAN teams sought to 1) develop care models that ensure safe, effective, and individualized care in place, 2) improve health care outcomes and experience of care for their patients, and 3) lower overall health care costs. The specific aim was by September 2020, 70% of participating teams would reduce their total cost of care (TCOC) to the payer with no detectable reduction of quality. Three teams did not report TCOC data, therefore, it could not be determined if costs were reduced. The COVID 19 pandemic and reductions in cash flow forced two teams to withdraw prior to the end of the collaboration. No decrease in quality of care was identified and reductions in TCOC was achieved by four of the teams.

Model for Improvement, Change Theory, Diagrams and Purpose

The IHI and WHI used evidence-based process improvement tools to help the HomeLAN teams accelerate their improvement efforts. The teams used the Model for Improvement to guide how to apply improvement science methodology to their initiatives.They also developed diagrams and flowcharts to map out what was required for change and the specific ideas that lead to change. We offer a brief introduction to two process Improvement tools and an explanation of how they were utilized to advance the teams' work during the HomeLAN.

Organizations Participating in the HomeLAN

While all HomeLAN teams shared the overall aim to develop a home-based acute care program for older adults, each team tested different elements of a potential model, as presented in the table below.

HomeLAN Organization	What Was Tested
Mount Sinai Community Paramedicine	Nurse-led electronic Community Paramedicine referral pathway for treat in place if possible
Mount Sinai Hospital at Home	After-hours enrollment to Hospital at Home by hospitalists. Continuing Hospital at Home to shorten stay during pandemic
Integra Community Care Network	Integration of geriatric home-based primary care into existing Community Paramedicine and hospital at home programs
Geisinger	Home visit protocol following hospital discharge after COPD or HF stay, and/or initiating directly from home utilizing Community Health Assistants and telehealth technology connectivity to a provider
Trinity Health Affinia/ ProMed Ambulance	Primary Care led home-based engagement through community paramedics
Trinity IHACares/Whatever It Takes	Primary Care led home-based engagement through community paramedics
UC San Diego	Acute Care at Home using home health agency referral directly from the emergency department with expedited start of care
UnityPoint	Scaling Hospital to Home with telehealth
Visiting Nurses Association Health Group of New Jersey	Accelerating start of care and post-acute rapid response with a home health agency
Montefiore- White Plains Hospital	Post-hospital discharge engagement with community paramedics and telehealth
Bellin Health	Telemonitoring in the home with home-based acute care response using RNs and NPs
HealthPartners	Home engagement through community paramedics and virtual hospital medicine physicians to facilitate ED U-turn, hospital at home, and early discharge
Integrated Health Care Alliance	Managing COVID-19 in skilled nursing facilities using a Code Sepsis protocol

Developed as part of the 2019-2020 work of WHI and IHI HomeLAN, this "Getting Started Guide" shares the knowledge gained by the HomeLAN teams. We hope this document can guide other organizations in building their own models and processes for home-based acute care for older adults.

High-level takeaways from the HomeLAN work include the following:

1. Articulating a sustainable financial model is still a "work in progress." Currently there is no generalizable financial model, but there are several perspectives on how to approach building a business case.

2. A key consideration in addressing unplanned acute care for older adults is the allocation of resources, and whether to deploy resources upstream for alerts of impending acute events and actions to avert potential hospitalizations and/or implementing interventions at the time of an acute event to avert an imminent hospitalization, with greater assurance of reducing high-cost care.

3. Organizations need to deeply understand the problem to be solved and create a strategy early on to guide the work. Give your best estimate of what is possible, secure solid support from leadership, and include frontline staff and patients in the design.

4. Align and build ongoing learning and communication for the financial strategy, operations, and clinical care, across all partners. For example, ACOs partnering with the hospital system, along with collaborators such as community paramedics, home health agencies, and primary care practices. Doing this work in silos reduces the likelihood of success.

We understand that home-based acute care is an emerging field where there is still much to be learned. Therefore, this resource is only a guide and the information gleaned from it should be transposed to fit the needs of the readers as your organizations become more experienced.

II. Introduction into HomeLAN Driver Diagram and Process Flow

Introduction

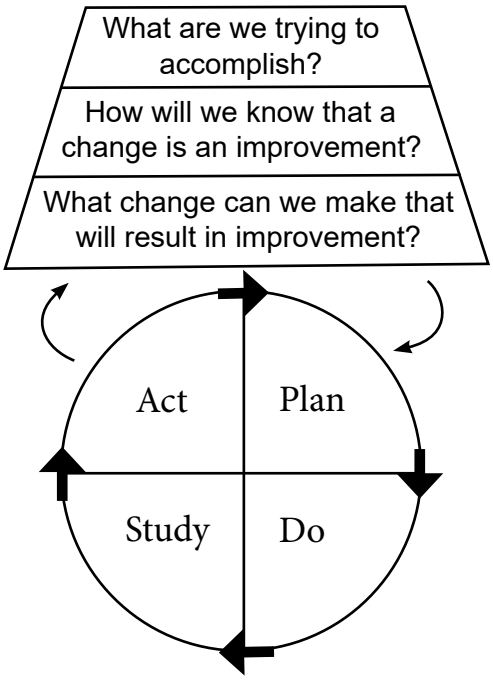
This Guide describes our best recommendations for program development based on learnings gained in the HomeLAN. Home-based acute care is an emerging field where knowledge will continue to grow as organizations become more experienced.

We present change concepts that can be used to develop home-based acute care programs including change ideas (things to try), tips, guidance, and resources. Although not a recipe to ensure specific results, these changes are our best knowledge to date regarding the development of such programs. The best practices that support successful program development, from pilot to scale, are applicable in most settings.

Process Improvement Tools

1 The Model for Improvement (MFI) is a framework to guide improvement work. Developed by Associates in Process Improvement, it consists of two parts: three fundamental questions and the Plan-Do-Study-Act (PDSA) cycle. The three questions are: “what are we trying to accomplish?” to set the aims; “how will we know that a change is an improvement?” to establish measures; and “what change can we make that will result in improvement?” to select ideas for changes. Following the answers to those questions is the PDSA cycle to test changes in real work settings.

Model for Improvement



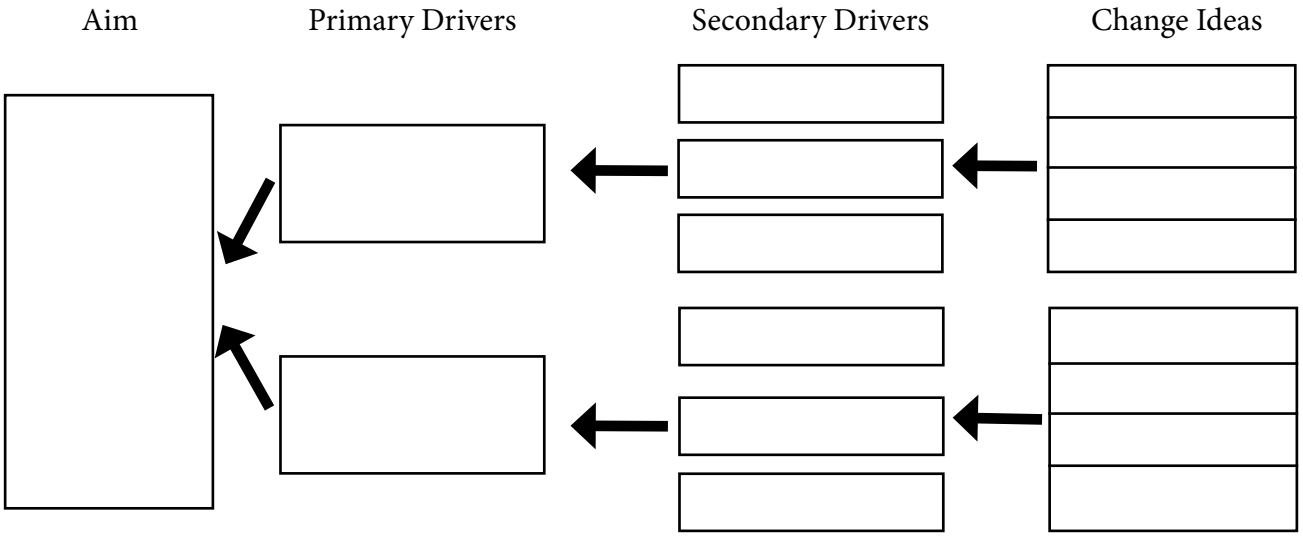
A key part of the MFI is to develop a set of ideas that result in improvement (also known as “Theory of Change”) and thus outlines changes that will improve systems of care. Each team used the MFI to complete small, rapid tests of change in their model processes. Some tests included effective methods and ideal times to engage patients, streamlining process for obtaining labs, initiatives for COVID-19 responses, and staff onboarding protocols.

2

A Driver Diagram is a visual representation of what contributes to, or drives, the achievement of the project aim. It maps out the relationship between the project aim, the system components that contribute to achieving the aim (the primary drivers), the components that influence the primary drivers (secondary drivers) and the specific ideas that can be tested for each secondary driver (change ideas).

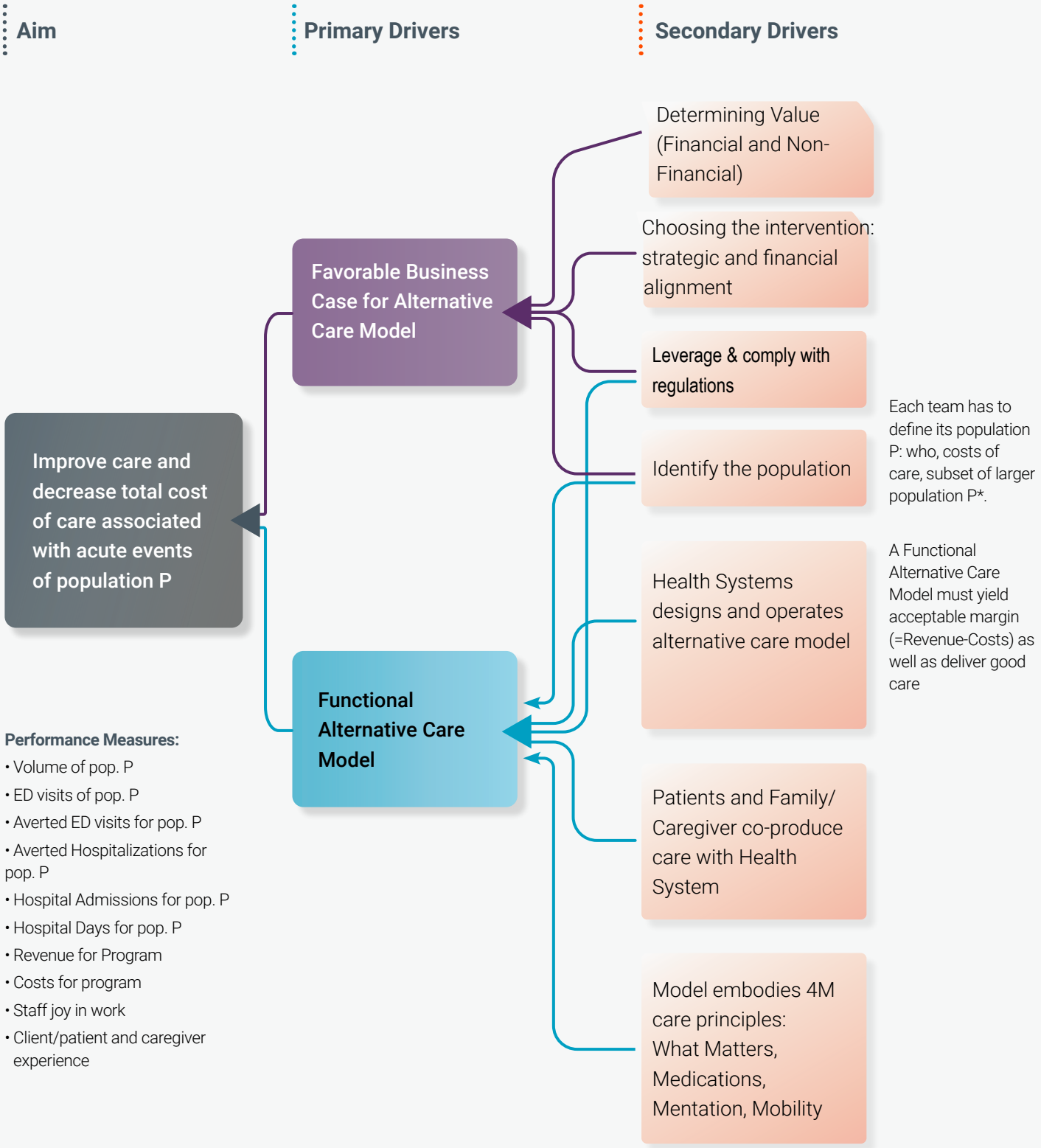
The importance of a Driver Diagram is it helps teams determine the factors, the tests of change that will directly influence progress towards achieving the aim.

Example: Driver Diagram

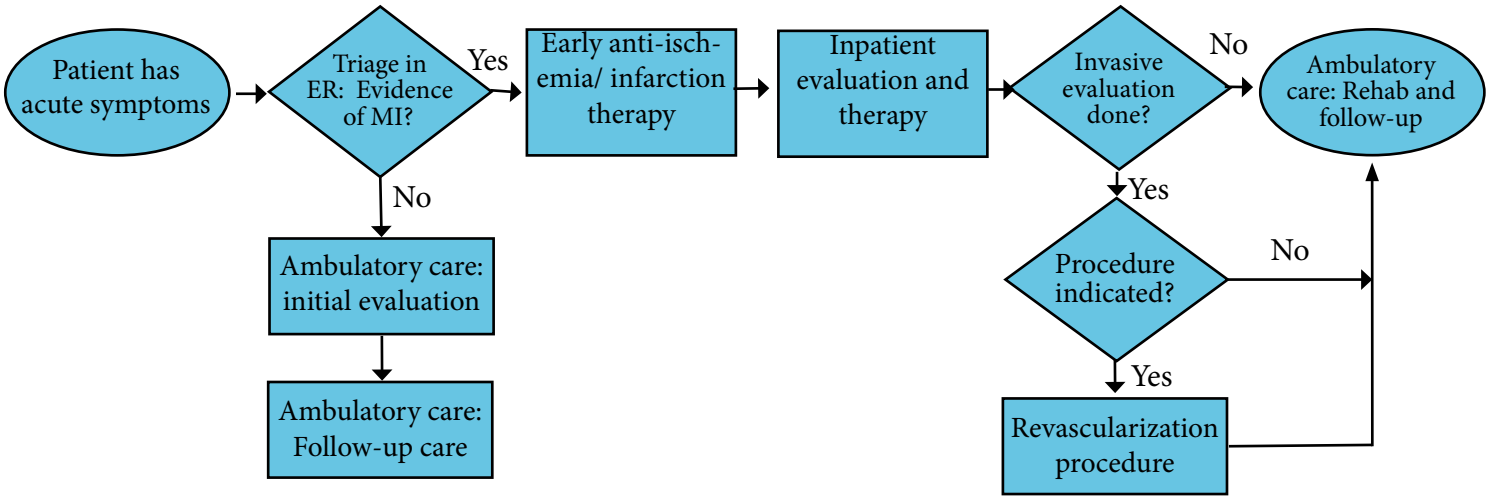


On the next page you will find the Driver Diagram created as a result of our teams collaborative work. The shared aim to “Improve care and decrease total cost of care associated with acute events of population p” drove the other elements of the diagram. As this Guide progresses, the methodologies behind each Primary Driver, Secondary Drive and Change Ideas will be further explored.

Home-based Acute Care Theory of Change and Driver Diagram



3 A flowchart, or Process Map, identifies the steps and program aspects that organizations either have or need to consider when developing programs. It is important that teams have a shared understanding of a process as it currently operates to help identify problems and resources, and develop ideas about how to improve. The flowchart can provide more details about the process outlined in the driver diagram.



The HomeLAN process flow map allowed us to draw a picture of the way this process works so teams could develop ideas about how to improve it.

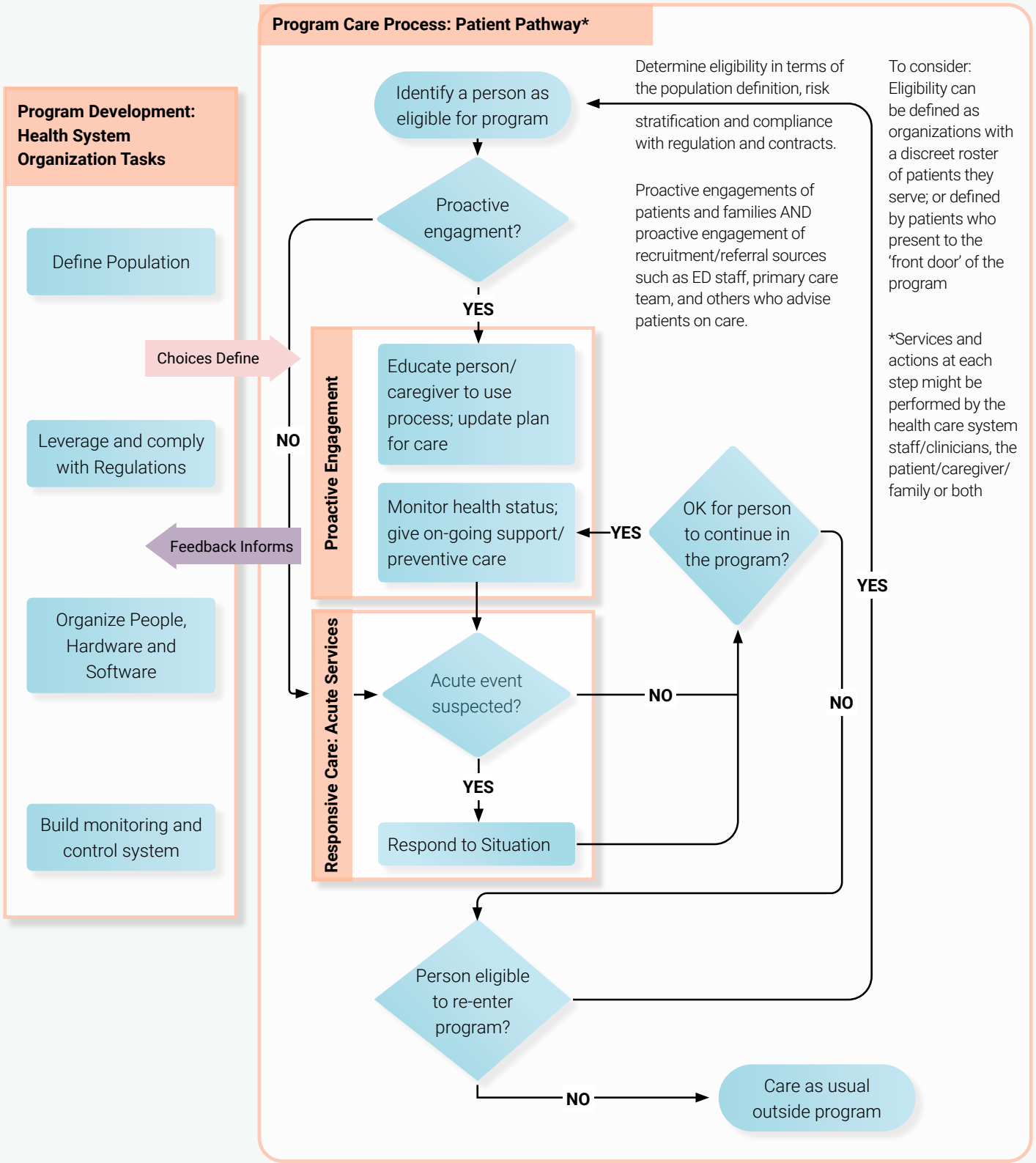
This high-level flowchart example shows a panoramic view of the process of delivering home-based acute care for older adults.

This flowchart made it easier for teams to identify rework loops and complexity in their processes. Teams used this process flow map to pinpoint issues or when they were making changes in the process.

Benefits of using this Process Flow Map:

1. Helped teams clarify their own complex processes.
2. Identified steps that did not add value to the stakeholders.
3. Helped teams use this knowledge to collect data, identify problems, focus discussions, and identify resources.
4. It served as a basis for designing their own new and unique processes.

HomeLAN Process Flow



Relationship Between Driver Diagram and Process Flow

We built the Program Care Process for the perspective of how a patient would travel through the process. We started with individuals being identified as “eligible” for the program based on factors unique to each organization’s program. We added a step for teams that “enrolled” patients in their program at a point other then when they were actively having an acute event. We called this “proactive engagement” which could be for example, frequent check-ins or scheduled home visits. If proactive engagement was part of the process, this often included patient education about the conditions, advanced care planning, some form of health monitoring (e.g., scales, blood pressure, etc.) and preventative care. Many programs were designed to address acute events when they occur and do not have contact with the patient prior to this. For example, when a patient arrives in the emergency department. Once the acute event is responded to and the individual is stabilized at home, the process could be either to be discharged from the program or to loop back into the Proactive engagement section. The box to the left of the flow chart or tasks each organization must address. These tasks define many of the choices that arise in the Process Flow and then feeds back to continue to inform the organization on these tasks.

Organization

This Getting Started Guide is organized around the primary aim presented in the Driver Diagram. To “Improve care and decrease total cost of care associated with acute events of population p”. To acheive that aim, the concept was further broken down into two Primary Drivers that encompass those changes. The next two major sections of this Guide explore each of the Primary Drivers as well as the secondary drivers that describe in detail their relevance.

This guide then offers Change Ideas on how to further improve upon the ideas discussed in this Guide. Providing the best and most afforable care is what drove this

III.
Overview of Primary Drivers

Overview of Primary Drivers

The change concepts for the two primary drivers presented in the driver diagram are described in a summary list below, with more detail provided in the section that follows.

PRIMARY DRIVER 1:

Favorable Business Case for Alternative Care Model

The first key activity is to build a favorable business case to cover operations and cash flow and achieve desired shared savings or value for the organization and partners.

Key to any innovation is a sustainable business case. Developing new models to provide home-based acute care and disrupt the costly trajectory that typically culminates in a hospitalization requires the same business thinking as any other endeavor. However, organizations embarking on this work should take the necessary time up front to map out and consider key elements for successful programs that deliver home-based acute care for older adults.

The learnings for this primary driver presented below are both general and specific to the efforts of HomeLAN teams.

- Choose an intervention to provide home-based acute care to older adults that aligns with the strategic goals, strengths, and mission of the organization. Determining when and where the intervention will be deployed (e.g., at the time of an acute event and/or ahead of likely future acute events) and the implications for potential savings from averted utilization, resource requirements, and staffing is key to a financially viable program. Consider the innovation's potential for lowering costs through averted utilization, the organizational expense to develop and run the intervention, and the opportunity to improve care for older adults.

- Determine financial and non-financial value needed in the program as defined by stakeholders and build into the design of the program to increase acceptance and use of the new intervention.

- Leverage and comply with regulations specific to providing home-based acute care and older adults. This will enable organizations to capture revenue, improve access, create opportunities for program growth, and lower operating costs to deliver the care by leveraging available technology and professional caregivers.

- Understand and document revenue, actual or projected value-based savings, and operational costs for the new intervention. Determine how these elements drive a business case to garner ongoing support for the intervention's sustainability and growth. Determine with leadership how to develop and track daily operational costs, revenue, and value-based savings to show return on investment and impact on the total cost of care.

PRIMARY DRIVER 2:

Functional Alternative Care Model

The second key activity is putting together all the processes necessary for a functioning and operational alternative model to enable the disruption of the default trajectory to hospitalization. Below are the high-level change ideas, with more detail to follow regarding what HomeLAN teams learned in developing a system that functionally works.

- Specify a clear scope of services for how the home-based acute care program will be deployed, including who, what, where, how, when, and why. Home-based acute care interventions require staff with specialized skills, supplies, and equipment. It is critical to specify each aspect, when it will be reliably available, and how it will get delivered.

- Specify how and when in the care journey patients are identified as likely meeting the inclusion criteria for the program. This can be done at the time of an acute event or administratively from reports of individuals meeting criteria, who are then linked to an outreach method (e.g., through primary care) or contacted directly.

- Specify how patients are recruited and enrolled in the program. A key decision point is whether individuals will be recruited and enrolled in the program before an acute event or at the time an acute event occurs.

    - Proactively engaging patients before an acute event creates a more reliable connection to the alternative intervention being deployed, but also requires upfront resources. Engaging individuals at the time of an acute event does not require resources ahead of time, but it limits the opportunity to intervene early and perhaps prevent such events from occurring or becoming more severe.

- Provide evidence-based, high-quality clinical care and documentation that treatment is at least as safe, effective, and high quality as traditional institution-based treatment.

- When an acute event occurs, create a prompt for staff to know how to deploy the intervention rather than following traditional care pathways.

- Monitor health status and ensure ongoing preventive care prior to an acute event, and after an acute event as part of an effective care continuum; and perhaps even prevent or avert the next ED visit or hospital admission.

- Proactively engage patients and caregivers to teach effective self-management, monitoring, and how to best use your program.

- Plan well in advance how to sustain the program both clinically and financially.

IV.

PRIMARY DRIVER 1:

Favorable Business Case for Alternative Care Model

PRIMARY DRIVER 1:

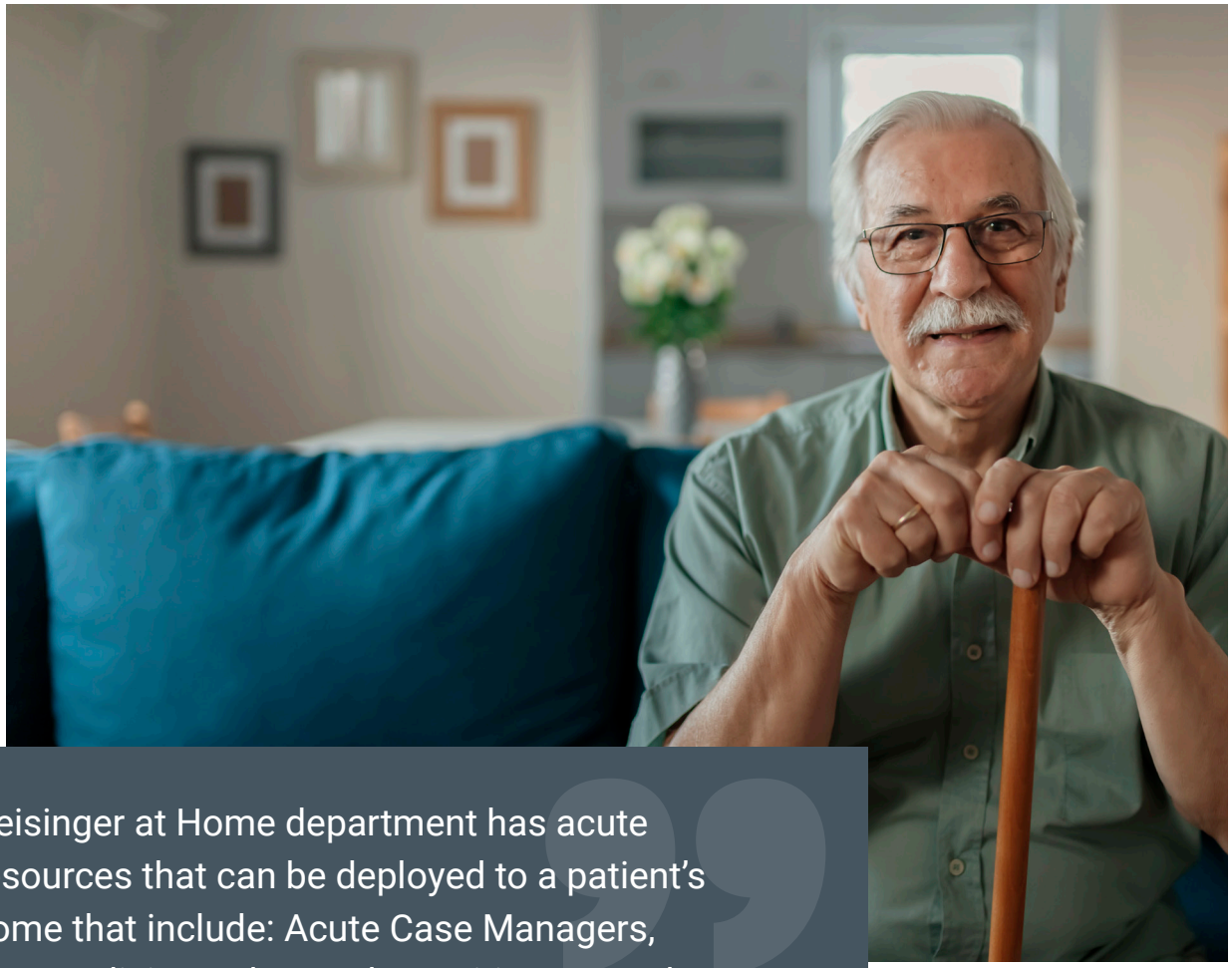
Favorable Business Case for Alternative Care Model

A deeper dive into the secondary financial drivers

1. Determining Value: Financial and Non-Financial
2. Choosing the Intervention; Strategic and Financial Alignment
3. Leverage and Comply with Regulations
4. Identify the population (both primary drivers)

The first key activity is to build a favorable business case to cover operations and cash flow and achieve desired shared savings or value for the organization and partners. Before starting the development of a home-based acute care model for older adults, the change ideas, key considerations, tips and guidance, and resources described below will help your organization choose the intervention or set of interventions that fit with your strategy, finances, infrastructure, and resources.

To begin, you will need to gather a small core team to focus on planning and projection, and to engage necessary partners for success. Of course, all best practices relating to the development of successful health care delivery programs apply and we encourage organizations to use rigor in using those best practices. The change ideas, tips, and resources below are the ones we found that require clear and deep focus when developing home-based acute care programs for older adults.



> Geisinger at Home department has acute resources that can be deployed to a patient's home that include: Acute Case Managers, Paramedicine, Advanced Practitioners, and patient's Case Manager.
>
> *— Geisinger LAN team member*

Change Concept

ESTIMATE/TRACK REVENUE AND COSTS

Understand and document revenue, value-based savings, and operational costs for the new intervention. Determine how these elements drive a business case to garner ongoing support and how to develop and track daily operational costs, revenue, and value-based savings.

CHANGE IDEAS

- Partner with a dedicated finance department leader.
- Work with internal and external partners to understand their costs and revenue potential. Predict expenses incurred in setting up and running the program daily, including partner's costs, indirect and ancillary support.
- Identify and capture all reimbursable points of care (e.g., use of all relevant billing codes) and develop education, training, and workflows to ensure their use is optimized.
- Create process and flow maps of revenue and expense streams for the intervention and ensure process steps to generate revenue and manage costs are leveraged into staff roles and care delivery.
- Develop a good method for understanding what volume is necessary to realize the value and sustainability of the investment.

> Through increased revenue in the HBPC practice (increased enrollments) the revenue was able to offset a greater portion of non-billable Community Paramedicine costs.
>
> *— Integra LAN team member*

TIPS AND GUIDANCE

- Ensure you have a finance leader's support and involvement from the beginning, and that this leader understands the predicted business model, strengths, and gaps for the program.
- Work with the finance team to automate revenue and cost tracking by creating specific accounting units for these items, as well as to map revenue and cost to your electronic health record. By creating a dedicated accounting structure (unique budget code, cost center, or other cost identifier) you will be able to see where all cost/revenue flows and report back to leaders and stakeholders.
- Involve billing and coding personnel to ensure providers are capturing all possible revenue streams from the services they provide.
- Develop an information sheet and share it with participating providers to make it easy for them to take advantage of existing billing codes.
- Account for all program costs/expenses on the front end to better understand financial impact and inform your business model (i.e., allows you to set targets for visits and encounters).
- As the program develops, work to create efficiencies by leveraging every role to the top of their license and skill; work to gain efficiencies of scale and technology.
- Examples of costs to track include labor, benefits, supplies, equipment, ancillary support, indirect costs, and leadership time (reference the Business Case Template for more information).

LINKED RESOURCES

- Business Case Template -Program Financial Impact An example of a spreadsheet used by one of the HomeLAN teams for their program. Contains 7 tabs with formulas built in.
- HomeLAN Teams' Cash Flow Maps Presentations from HomeLAN participants showing the business case and cash flow for their programs.
- Proforma — UnityPoint UnityPoint graciously provided a comprehensive excel-based resource for planning your program.

The following resources are on the participating team's business cases taken from presentations at our Learning Sessions.

- Slides with sample Excel Sheet: Revenue and Expense Documents — HealthPartners
- Slides: ROI from SBAR — Bellin
- Slides: Integra Business Case Presentation
- Worksheets: Payment Pathway Instructions: These worksheets used in our in-person Learning Sessions to help teams' articulate elements of care redesign. Teams needed to identify the number of people in their population focus and what their ED and hospital utilization would be if no changes were implemented. Next, they needed to predict that once an intervention was undertaken, there would be some patients who would be missed (went to the ED), others would be accurately detected as having an acute event, and lastly, some would be false alarms. Of the people where an acute event was detected, some would still get escalated to the ED, some could avoid the ED or hospital, and the false alarms would get some abbreviated service that might consist of education or reassurance and trust building. From this first exercise, teams could develop an aim.

  On the second worksheet, teams took the information from the first worksheet and assigned dollar amounts to each group or activity including who pays (as sometimes it is different entities). The end results of this worksheet are to fully understand the financial implications of the new process or model.

  The final worksheet compares current program (A) with new program (B) on who benefits and who pays, as they may also be different entities. Program (C) contemplates any new changes teams would contemplate based on this exercise.

Change Concept

STAKEHOLDER ALIGNMENT

Determine financial and non-financial value needed in the program, as defined by stakeholders, and build into the program design to increase acceptance and use of the new intervention.

CHANGE IDEAS

- Specify what your organization, leaders, and key partners see as success (e.g., lowered health care costs from averted utilization, quality care improvements, gross margin hurdle, impact on performance of other parts of the health system).
- Identify key stakeholders (including patients and caregivers) and identify what stakeholders value and need to participate in this alternative home-based acute care (e.g., help patients with complex needs, filled hospital beds or decreased demand for beds, older adults not wanting hospital admissions).
- Model the business case to include the financial impact of averted ED visits and hospitalizations, the financial impact of averted adverse events related to hospitalizations, and the predicted costs to run the program.
- Structure a team to ensure that leaders of the risk-bearing entity and care delivery teams stay closely aligned around the desired impact of the program, share ongoing learnings, and leverage financial benefits for both.
- Recognize who might see a negative financial or other impact from the program and work to mitigate these effects (e.g., if a hospital's census management strategy is working to keep beds full and the intervention averts hospital admissions, this impact may be mitigated by increasing admissions with a higher case mix index; a primary care physician concerned the intervention may decrease office visits and interfere with established patient-provider relationships may appreciate help with very complex older adults and a reliable way to communicate the current care plan).

> We identified direct costs of the program and have worked with finance and IT to separate program salary and equipment expenses into a separate GL account for tracking purposes.
>
> *— Bellin LAN team member*

TIPS AND GUIDANCE

- Engagement with stakeholders is critical to success. Home-based programs for older adults that do not engage key stakeholders and deliver some needed value, or negatively impact stakeholder interests, struggle with a low volume of referrals and have difficulty engaging these stakeholders for ongoing support.
- Cast a wide net for Stakeholders to avoid "land mines"- this expanded stakeholder list may include emergency department physicians/clinicians, primary care practices, care management staff, nurses, care delivery partner organizations, patients and their caregivers, the risk-bearing entity (e.g., ACO of the organization), and the clinical/operational entity.
- If a program's business case relies on shared savings that are realized in a longer-term horizon, organizational leaders will need to determine how to cover daily operating costs for the program and care delivery partners if needed.
- Presently there may not be sufficient sustainable reimbursement pathways for new programs focused on home-based acute care that generate the needed revenue to cover all costs. Often these new programs generate savings elsewhere in the care continuum and reduce total cost of care, so leveraging every possible way to generate revenue and value-based savings is crucial to initially grow and sustain the program.
- The value-based arm of an organization has knowledge and skills to leverage costs and outcomes for a population and the clinical delivery arm has the means and expertise to deliver care. To be successful, these two groups need to be continuously, tightly aligned on goals and means to ensure each strategy is operationalized and realized.

> We have built a unique department within the electronic medical record to track expenses from this program separately from all other charges.
>
> *— HealthPartners LAN team member*

LINKED RESOURCES

- Hospital harms literature which could help in gaining stakeholder support.
  - HHS report: Levinson: Adverse Events in Hospitals: National Incidence among Medicare Beneficiaries
  - Article: Kjellberg et al: Costs Associated with Adverse Events among Acute Patients
  - Article: Adler et al: Impact of Inpatient Harms on Hospital Finances and Patient Clinical Outcomes

> We learned that monetary value of the program may come from other sources, such as avoidance of patient harm, rather than just the direct reimbursable charges.
>
> *— White Plains*

Change Concept

CHOOSING THE INTERVENTION: STRATEGIC AND FINANCIAL ALIGNMENT

Choose interventions to provide home-based acute care that align with the strategic goals, strengths, and mission of the organization. Consider the intervention's potential for lowering costs through averted utilization, expenses needed to develop and sustain the program, and the opportunity to improve care for older adults.

CHANGE IDEAS

- Engage with leaders for whom incentives are aligned with lowering overall costs of care while improving the quality of care for older adults (such as ACOs, health plans, Medicare Advantage); include them in co-designing a model that is predicted to achieve the above goals.
- Determine a population of older adults to focus on based on the specified organizational desired outcome of lowering overall costs and improving quality of care — for example, older adults ages 65 and over in an ACO or specific plan such as Medicare Advantage.
- Use a multi-factorial data analysis to characterize the intended population. Using multiple types of data (e.g., clinical, financial, demographic) provides the clearest picture of the patients who could most benefit and for those at risk for future, potentially avoidable, high utilization of ED visits and/or hospital admissions.
- Divide your selected into a subsegment and where there is opportunity to change acute care utilization (e.g., by certain diagnosis, frailty, specific geography).

> Using a test environment for technology devices is imperative.
>
> *— IHA LAN team member*

CHANGE IDEAS

- Understand the needs of the population segments that drives health outcomes (clinical, social, environment, nutrition, and community resources) using a Three-Part Data Review and design your interventions to impact key drivers of the desired organizational outcomes.
- Develop a continuum of home-based acute care services that will lower startup costs and decrease the timeline to deploy, consider building new interventions by leveraging currently available services (e.g., complex care management, home-based primary care, community paramedicine).
- Identify potential internal and external partners based on the services to be delivered (laboratory testing, infusion services, DME); discuss with potential partners whether these partnerships will require contracts and/or cost money or generate revenue (e.g., community paramedics, emergency physicians, home health agencies).
- Model predicted/potential program impact on overall health care costs, quality of care, and the resources required against utilization patterns and care outcomes of current care models.
- Co-develop with key stakeholders and partners a common understanding on key metrics for success, including a finance decision maker.
- Create models to plan for program capacity, resources needed, organizational desire for growth, and the potential opportunity in the population served as a part of the program's projections.
- Engage legal team and/or compliance team to interpret state law and hospital/organization risk tolerance.
- Decide on a strategy to start and test your predictions (e.g., start a small pilot for proof of concept and then identify a decision point; start small with clear aims to grow to a certain volume or capacity). A key consideration for this strategy is ensuring that the clinical processes to provide the alternative acute care are safe and highly reliable.

> We learned that the stakeholder groups will be important to understand provider view points on what's working in the program and where barriers exist.
>
> *— Trinity IHACares LAN team member*

TIPS AND GUIDANCE

- Understand that even within an accurately characterized subgroup (e.g., expected high utilizers), there may be extensive individual variation in future utilization. Thus, beware of expending resources on those individuals that may exhibit low spending, despite being members of expected high-spending subgroups.
- Avoid aligning with leaders and/or strategies whose incentives are misaligned (e.g., focus on increasing high-dollar revenue producing services). You will likely not get the attention, resources, or ongoing support needed for a program focused on averting ED visits and/or hospital admissions for older adults.
- The most common targeted diagnoses that HomeLAN teams chose to include were Congestive Heart Failure, Pneumonia, Urinary Track Infection, Chronic Obstructive Pulmonary Disease, and cellulitis. Reimbursement for these DRGs tend to be money losers for hospitals and have strong evidence for home-based acute care processes.
- Consider initially using table-top simulations to develop key processes, roles, and workflows before testing live with staff and patients. These exercises can help provide insight into the decisions needed in the preparatory stage.

> Communication and setting up the program in the ED takes time. Staff need reminders, feedback and the data.
>
> *— UC San Diego LAN team member*

LINKED RESOURCES

- Three-Part Data Review a systematic process for understanding the root causes of high cost utilization, helps you understand the needs and assets of the older adults in your care that is critical in designing effective and sustainable acute care models.
- MedStar Social Determinants of Health Report April 2019 — West Health Institute Contained in this section is an analysis done by Medstar on a group of high utilizers showing the breakdown of specific characteristics of determinants of health that were addressed in their program. This resource is useful to show how organizations can use social determinants to target the population that needs help in their system.
- Accountable Care Atlas (to access the atlas and a leadership checklist, please click this link and register with Accountable Care Learning Collaborative to download for free).
- Social Determinants of Health Assessment Tool: OneCare-Vermont Self-Sufficiency-Outcome Matrix.
- Downloadable article by Dr. Christine Ricci: Medical Care at Home Comes of Age.
- New Approaches to Safely Avoid Hospitalization in Acutely Ill Older Adults Presentation Q&A and Gap Analysis Guide. This resource includes questions asked by conference participants via text message from across the country during a webcast presentation at the 2019 National Acute Care for Elders Conference. These questions are relevant to the work of the HomeLAN teams and provide some insight into program development.

Change Concept

LEVERAGE AND COMPLY WITH REGULATIONS

Leverage and comply with regulations specific to providing home-based acute care for older adults to capture revenue, improve access, create opportunities for program growth, and lower operating costs to deliver the care by leveraging available technology and professional caregivers.

CHANGE IDEAS

- Use waivers specific to contracts or organizational structure such as Next Generation ACO and Medicare Advantage (e.g., COVID-19 emergency regulation changes for billing for telehealth and acute hospital care at home).
- Stay abreast of changes and build relationships with groups and others leveraging regulations and waivers that support home-based acute care for older adults.
- Understand local emergency medical services, home health agencies, and medical practice regulations to ensure that your model complies with a recognized legal framework.
- Develop alliances with key state and local officials in your area.
- Ensure program leaders and staff have easy and continued access to relevant, up-to-date knowledge of regulations and waivers and support staff in putting these into operation.

> Development of a telehealth provider note by EPIC team versus note created by staff (increase standardization, accuracy, and efficiency as well as enhance data reporting elements within documentation).
>
> *— Geisinger LAN team member*

TIPS AND GUIDANCE

- Connect leadership and operations across organizations (e.g., ACO and hospital) to share knowledge and leverage opportunities to optimize operations and clinical care.
- Assign responsibility to designated organizational staff role(s) to stay current with waivers and regulations. At the program level, outline and identify the role(s) responsible for regulations to ensure accountability among program team members.
- Network with outside organizations (e.g., National Association of ACOs, Accountable Care Learning Collaborative, West Health) for the latest translating regulatory information.
- Make it easy for staff to leverage and comply with regulations by creating standardized documentation and staff education and training.
- Design roles so that all staff deliver care at the top of their license per regulations (e.g., home health nurse practitioner signing point of care (POC).

LINKED RESOURCES

- Article: Munjal: Realignment of EMS Reimbursement Policy
- Article: Abrashkin and Slaboda: Scaling Telehealth (June 2019)
- Potentially useful waivers: ACO participation options; Next Generation ACO telehealth waiver; Next Generation ACO Home visit waiver;

> We are leveraging home care division to create standards for in-home visits, and we completed initial training on this with our providers of the day (UPODS). We are exploring safety guidelines for our providers.
>
> *— HealthPartners LAN team member*

V.

PRIMARY DRIVER 2:

Functional Alternative Care Model

PRIMARY DRIVER 2:

Functional Alternative Care Model

A deeper dive into the secondary financial drivers

1. Design and operation of the new model
2. Patients and family/caregiver co-produce care with the health system
3. Model embodies 4M care principles: What Matters, Medications, Mentation, Mobility

The development of a safe, effective model to provide home-based acute care for older adults involves many steps. The change ideas, tips, and resources below were developed and tested by HomeLAN teams. This first section is focused on high-level program considerations and change ideas. The second section, Build and Run Key Program Elements of the Intervention, provides details of the key steps in developing effective interventions for home-based acute care for older adults.

Change Concept

DESIGNING AN ALTERNATIVE MODEL

Specify a clear scope of services for how the home-based acute care program will be deployed, including who, what, where, how, when, and why. Home-based acute care interventions require staff with specialized skills, supplies, and equipment. It is critical to specify each aspect, when it will be

CHANGE IDEAS

- Define inclusion and exclusion criteria for how to determine if an individual is a good fit for the intervention and if the home environment will support the alternative care model.
- Determine the hours the intervention will be available, ensure coverage during those hours, and develop processes for patients and staff outside of those hours.
- Create a detailed flowchart that describes and visualizes the care pathway, including if and how partners such as community paramedicine or home health will integrate into the pathway.
- Create "swim lanes" on a flowchart to visually distinguish specific job roles and responsibilities for processes.
- Run simulations to test new processes before involving patients (especially if high risk) to determine what will be in scope or out of scope for the program.
- Anticipate education needs for program operations and reliability (e.g., home visiting skills for ED physicians and upskilling RNs for acute care delivery).

> Covid-19 has spurred the program to rely on community paramedics, ED referrals, and hospital referrals. A silver lining in this outbreak has been the hospital's support of this program.
>
> *— HealthPartners LAN team member*

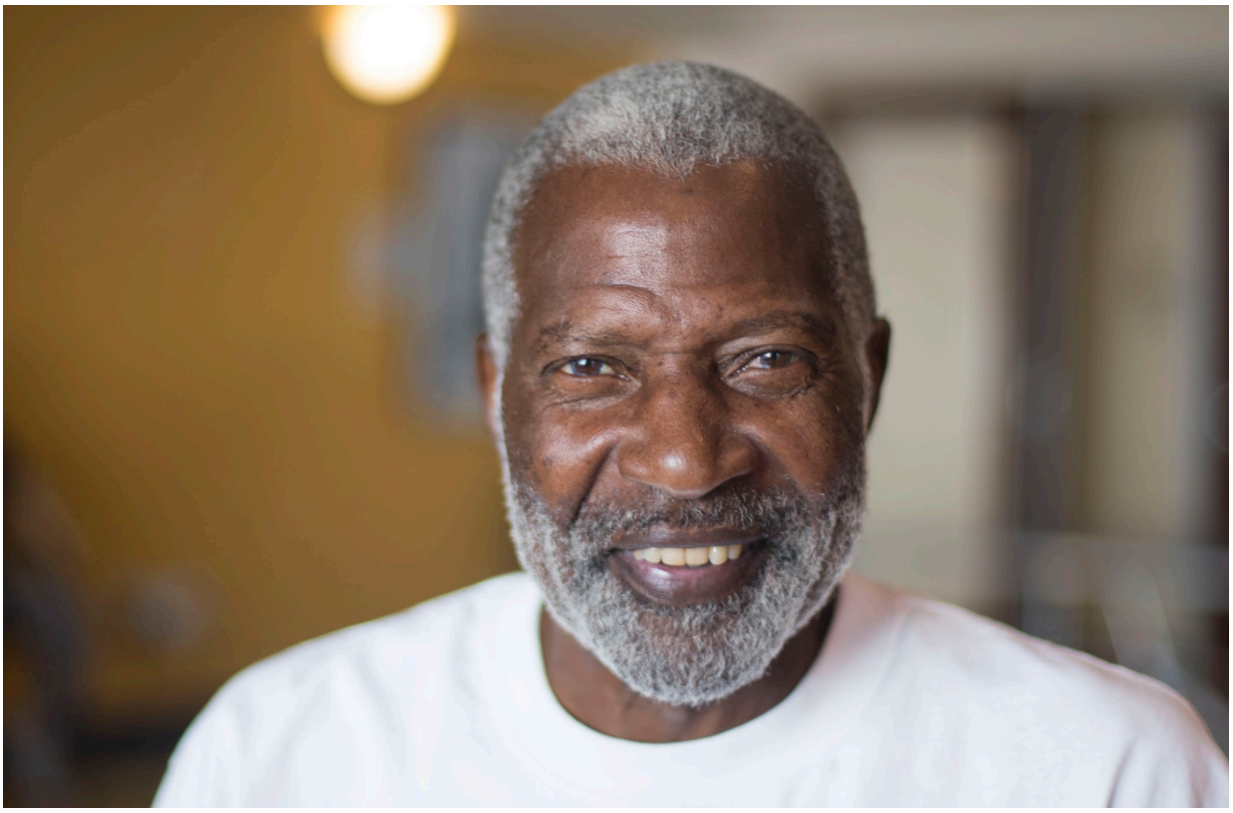
TIPS AND GUIDANCE

- Predict and plan these specifications in the beginning as a place to start and then learn your way into identifying best practices and adapting processes.
- A common exclusion criterion for these programs is inadequate support in the home to provide the needed care or an unsafe environment for staff.
- Many home-based acute care programs start with typical weekday work hour coverage and then expand coverage with a goal of 24/7/365 coverage.

LINKED RESOURCES

- Blog: Learning How to Improve: Start with Work Standards — Informing Ecological Design, LLC

> We have learned and continue to learn how to roll with the punches to continue this work in this challenging environment.
>
> *— Trinity Affinia LAN Team Member*



Change Concept

DEFINING THE POPULATION

Specify how and when in their care journey patients are identified as likely meeting the inclusion criteria for the program. This can be done at the time of an acute event or administratively from reports of individuals meeting criteria, who are then linked to an outreach method (e.g., through primary care) or contacted directly.

CHANGE IDEAS

- Develop the workflows and roles for care delivery, define inclusion and exclusion criteria for the program, and identify individual patients for the intervention based on the criteria.
- Determine logistics for identifying individuals based on the activation point of the intervention. Common activation points include: 1) proactively enroll patients in the program and wait for an acute event to happen; 2) enroll patients at the time of an acute event such as an ED visit or patient call to 911 3) engage clinicians (e.g., primary care physicians, care management staff) in determining if an individual in their care is a good fit for the program based on defined criteria; and 4) launch the intervention in the home versus in the ED/hospital/clinic, then send patient home.
- Establish processes to ensure verification that the older adult meets inclusion criteria for the intervention occurs at the time of each acute event, even if the patient has been previously identified and enrolled in the program.

TIPS AND GUIDANCE

- Utilize electronic health record flags/banners/alerts to identify potential patients at the point of service.
- Some programs combine the identification of individuals with recruitment and enrollment at the time of an acute event; programs that proactively enroll older adults before an acute event generally separate these processes.

LINKED RESOURCES

- Center for Health Care Strategies website: Screening Assessment Tools and Toolkits
- Website: Health Leads Screening Toolkit

> Per PDSA testing, we added a later MD shift to continue to clinically screen patients prior to referring to hospitalist for higher level screening.
>
> *— Mount Sinai LAN Team Member*

Change Concept

RECRUITING AND ENROLLING PATIENTS

Specify how patients are recruited and enrolled in the program once the processes to identify individuals who are a good fit for the program have been established. A key decision point is whether individuals will be recruited and enrolled in the program prior to an acute event or at the time of an acute event. Proactively engaging patients before an acute event creates a more reliable connection to the alternative intervention being deployed, but also requires upfront resources. Engaging individuals at the time of an acute event does not require resources before the event, but also does not provide the opportunity to intervene early and perhaps prevent such events from occurring.

CHANGE IDEAS

Workflows and roles:

- Map out and specify the program's recruitment/referral and enrollment pathways and staff roles.
- Design the referral and engagement process so the program is easy for staff to use.
- Track referrals, participation in the intervention, outcomes, and missed opportunities for participation.
- Design workflows, processes, and roles to support the reliable delivery of safe and effective care, and leverage trusting relationships between program staff and older adults to support their use of the alternative intervention.

Building awareness and buy-in — HomeLAN teams found this to be a critical and ongoing focus:

- Program staff need to drive and facilitate a shift in culture and mindset around alternative care being a safe and effective option for older adults over traditional care, for physicians, clinicians, and patients and their caregivers.
- Develop an effective, ongoing strategy to build awareness of the program, including marketing and communications across the organization, that articulates the necessity and benefits of the alternative care model to the organization and to patients and their caregivers.
- Determine program staff training and education needs to engage them effectively in the program.
- Develop and align marketing materials with the scope of services provided by the program.

CHANGE IDEAS

- Document patient stories of care and assess the program's impact on patients and their caregivers, as well as the impact on staff joy in work. Incorporate these stories into the ongoing strategy for program marketing and communications.

Proactive engagement of physicians, staff, health care community, patients, and families:

- Engage directly with key clinical staff around the intervention so they will use the program, including ED and primary care physicians, nurses, social workers, and care management staff; seek areas of improvement from these groups and be responsive.
- Use data and stories to demonstrate the effectiveness of the program's services to meet the needs of patients in their homes and to improve clinician satisfaction.
- Engage with clinicians around the program on an ongoing basis.
- Build ongoing connections to health system partners to ensure their knowledge and confidence in the program.

> We engaged Care Management and Population Health Managers to further spread the word about Community Paramedicine to primary care practices and high utilizer patients.
>
> *— Mount Sinai CP add LAN Team Member*

TIPS AND GUIDANCE

- Socialize the idea of the alternative care model using stories of patients' experiences, and stories of the experience and/or adoption by clinicians of the new model of care.
- Organization A example: recruits and enrolls older adults at high risk of unplanned acute events proactively through their complex care management program to establish a relationship of trust between the staff who will be deployed to their home, to ensure the home-based alternative care model will be safe, and to educate the older adult and caregiver how to initiate the program.
- Organization B example: recruits and enrolls the older adult in the ED when the patient meets the inclusion criteria. This model has staff monitoring ED visits for appropriate older adults on an ongoing basis.
- Organization C example: deploys the intervention when the older adult calls for the EMS service, so recruitment and "enrollment" steps are not explicit.
- All interventions require the health care community, staff, clinicians, patients, and their caregivers to have buy-in for the alternative care model, which requires ongoing attention.

> Our referral process has shifted to taking referrals from the emergency department, hospitalists on service, and our community paramedic partners. We have increased communication with each of these groups and are working on an order to smoothly refer patients to this program.
>
> *— HealthPartners LAN Team Member*

LINKED RESOURCES

- Process flow map: Current State Nurse Triage Workflow at Internal Medicine Associates — Mount Sinai Community Paramedicine The flow diagram of the new nurse triage process workflow.
- HomeLAN teams- Table of Inclusion/Exclusion criteria Each of our teams developed criteria for including patients in their program or intervention. Many are common to all (chronic disease exacerbation, age, risk scores, etc.) and several are unique to the organization (geography, payer, acute episodic. conditions, etc.).

> Assessing patients via chart review only will limit enrollment. HaH enrollment must continually be creative in their approach to consider enrolling patients, especially if patient is agreeable. Provider must look at subjective criteria as well. Patients can appear more frail from EMR than in reality.
>
> *— Mount Sinai HaH LAN Team Member*

Change Concept

DESIGNING THE ACUTE RESPONSE

When an acute event is occurring, create a prompt for staff to deploy the intervention rather than follow traditional care pathways.

CHANGE IDEAS

- Design processes to help program staff know when to initiate and deploy the program or intervention. Strategies include patient/caregiver-initiated processes (e.g., a specific number to call when an acute event is occurring), processes to monitor patients for acute events (e.g., biometric monitoring, "tuck-in" calls every day, home visits, primary care visits), and processes that are initiated when the older adult engages with EMS or goes to the ED.
- Design the response to align patient needs and wants with the characteristics of the response (e.g., equipped SUV vs. ambulance, paramedic vs. nurse, telemedicine vs. in-person visits).
- Make sure that required resources for program monitoring and response are available, including the staff needed for program coverage times, to ensure a highly reliable response.
- Develop care escalation processes for instances when a higher level of care is required (e.g., call 911 as the default escalation and/or call ahead to the ED with patient information).
- Develop patient skills and knowledge to self-monitor and provide instructions for who and when to call if help is needed.
- Determine the right level of response time for the care needed (e.g., HomeLAN team response times ranged from 20 minutes to 4 hours).

> If there is an escalation concern, as an interdisciplinary team, we talk about potential options to be able to keep the patient in their home. In one instance, we had to escalate a patient to the ED. We are developing options to U-the patient out of Observation to keep them from being hospitalized.
>
> *— UnityPoint LAN Team Member*

TIPS AND GUIDANCE

- Utilize active patient management (e.g., remote patient monitoring device in the home, case management follow-up calls, daily vital sign checks) to alert program staff of patient needs.
- Differentiate processes between providing the patient and their caregiver instructions on how to respond when an acute event occurs, and ensuring the program has providers/care team in place who can respond.
- Provide ongoing education about the program to all initiating parties (whether that is the patient/caregiver, physician, or community paramedic). Retained awareness leads to highly reliable responses and drives use of the intervention when needed.
- Patient symptom management education supports patients and caregivers to recognize when the older adult may be destabilizing.

LINKED RESOURCES

- Triage Process — MS HaH A graphic created by the Mount Sinai team to show how patients get triaged to Observation at Home, Hospital at Home or Continuing Hospitalization at Home.
- Website: Monitoring Device Used- Residio and Health Recover Solutions— Bellin https://lifecaresolutions.resideo.com/ https://www.healthrecoverysolutions.com/
- Document: Telehealth In-Touch Patient Survey — Geisinger The team at Geisinger used this electronic survey administered in the home by their Health Care Associates to help them improve their services.
- Document: TOC Telehealth Checklist — Geisinger Process flow map with the Case Management Assistants work checklist during Transitions of Care interactions.
- Document: Community Health Associate Visit Checklist - Geisinger As part of the HomeLAN, Geisinger was testing using Community Health Associates (CHA) in the home to facilitate Telemedicine visits. They found more consistency during the visits when they implemented a checklist for the CHA's, who also expressed liking the checklist.

> The patients in our population are high risk and many can present with high acuity requiring hospitalization if acuity is greater than I@H criteria.
>
> *— Integra LAN Team Member*

Change Concept

CREATING THE CARE CONTINUUM AND STAFF ROLES

Monitor health status and ongoing, preventive care prior to an acute event, and after an acute event as a part of an effective care continuum to provide high-quality care and perhaps prevent or avert the next ED visit or hospital admission.

CHANGE IDEAS

- For program participants at high risk of ED visits and hospital admissions, ensure high reliability of the monitoring mechanisms (whether in primary care or enrollment in a specific program), home biometric monitoring, frequent check-ins, etc.
- Have a dedicated program team to help form relationships with the patient/caregiver to facilitate assessment issues as they arise to allow for informed decision making.
- Create open, real timelines of communication among care team members.
- Leverage every role to provide the range of care needed before, during, and after an acute event, and to provide ongoing monitoring of health status and preventive care.

> We created an order in the EMR for providers to place the expectation there is provider-to-provider handoff about each patient before discharge.
>
> *— White Plains LAN Team Member*

TIPS AND GUIDANCE

- An example of leveraging care team member roles: It worked well to have the telemonitoring RN conduct the initial home visit, install the telemonitoring device, conduct a medication review, explain the program, obtain signed consents, conduct initial assessment, and provide patient/caregiver education. This process saved on the advanced practice clinician time for the in-home enrollment visit.
- Utilizing a virtual care unit staffed by RNs who join remotely at the start of the care visit ensures that orders are carried out in a timely way, staff can troubleshoot issues as they arise, and patient follow-up occurs during the post-acute transitional care period.
- Balance early detection efforts and the resources required to support these efforts against the potential for averting ED or hospital admissions. Know the point at which more resources for monitoring does not result in lowered costs resulting from reduced ED and hospital use.

LINKED RESOURCES

- Document: PDSA Remote telemonitoring — Bellin an example of a test of change involving telemedicine to monitor patients and whether video capability would better help assess symptoms and triage appropriately to avoid an ED visit or hospitalization if possible.
- Document: Provider Note Example - Geisinger Geisinger developed a standard note template for providers to document their telehealth interactions. This not only standardized the data from the visit but made the process for user-friendly for the providers.

> We developed documentation in the medical record to better track any plan of care change conducted during a Transitions of Care telehealth visit.
>
> *— Geisinger LAN Team Member*

Change Concept

SUSTAIN THE PROGRAM

CHANGE IDEAS

- Develop monitoring and control systems that demonstrate the effectiveness of the alternative care program and ensure expected value is consistently communicated to stakeholders (e.g., track the number of times care needed to be escalated, adverse events, missed opportunities, patient, and staff experience).
- Create ongoing engagement and communications with stakeholders (monthly, bi-monthly, quarterly) about the home-based program to learn together about strengths, challenges, needs, and the ability to meet desired goals.
- Work with finance partners to determine and document how predicted savings from averted ED visits, hospital admissions, averted hospital harms, revenue generated, and program costs come together in a sustainable business case.
- Work with finance partners and other leaders to model volume of care episodes against program costs to chart a growth path for the program.
- Leverage every role to lower the cost of delivering care and increase growth opportunities by ensuring that all staff are working at the top of their license (MD, PA, NP, RN, EMT, paramedic, etc.).
- Determine and embed the program in a "home" department within the organization (e.g., a hospital at home program housed within the division of hospital medicine).
- Embed training for the new skills and processes required to deliver acute care in the home for all staff working in the new program, both for new hires and as ongoing refresher education for all staff.
- Document non-financial value through patient and staff stories; incorporate these stories into meetings, internal newsletters, and marketing and communications material.

> We have learned that scaling efforts have decreased costs.
>
> *— Mount Sinai HaH LAN Team Member*

TIPS AND GUIDANCE

- Consistent tracking of clinical and financial data, including avoided ED and hospital utilization, cash flow, expenses, and revenue, is critical to monitoring, improving, and sustaining the program.
- Cost/revenue generated per patient is a useful metric for scaling up the program and projecting volume and staffing. Cost/revenue per patient can show where overutilization of services may occur as well as where the program can make a profit. This is especially useful as a program looks to build and grow.
- Leverage every opportunity to share data and stories with stakeholders to garner ongoing support; tailor emphasis to each stakeholder audience (e.g., financial data for CFOs, clinical data for CMOs, patient satisfaction data for frontline staff).
- Engage with the health system's communications department. If the new changes can be positioned as better care for certain populations, and there are some good stories, communications can help get the word out.
- Leverage technology (such as telemedicine, remote monitoring, secure texting) and process automation (EHR-embedded algorithms) whenever possible and available.
- Ensure that you have a dedicated team with protected time allocated to complete the work, respond to patient and program needs promptly, and monitor quality assurance efforts.
- The new program may start out as a pilot to determine "proof of concept" and to understand the impact of the program more deeply. During this period, develop the financial business case and the quality case for the older adults that will be served by the program. Present these cases to leaders for a decision on supporting the program as it continues and/or grows.

TIPS AND GUIDANCE

- These programs often start small with part-time staff, which can make it challenging to produce enough volume to cover costs and demonstrate the business case. Work with decision makers on key milestones and deliverables to determine whether to grow or stop the program.
- Consider growth in relation to resources and infrastructure required to support the program and the potential opportunity to spread to a new geography, population, or payor.

> *Costs and reimbursements require alignment to scale of program.*
>
> *— VNAHG LAN Team Member*

LINKED RESOURCES

- Document: Template: Growing Your Program Worksheet Used in our HomeLAN Learning Session to help teams identify and plan for different elements regarding stakeholders, operations, workforce, and policies. They could more easily see at the end of the exercise where they needed to focus their efforts.
- Slides: Considerations in growing your Program An educational slide deck presented at a HomeLAN meeting. Three objectives: 1) Identify approaches to successful implementation and scale-up, 2) Describe the groups thriving or not thriving in the current care model and 3) Formulate strategies to test so that all groups thrive in the current care model.
- Table: MASTER Measures Definitions The table shows definitions developed for the measures used in the HomeLAN to gage progress toward the aims.
- Slides: Reporting to Sponsors Business Case Presentation — HealthPartners Deck used to communicate to Stakeholders and Leadership.
- Spreadsheet: Financial Analysis and Saved Bed Days — White Plains White Plains spreadsheet on metrics they presented to their system leadership to gain buy-in for the program.
- Geisinger Program Growth Discussion A presentation created to gain stakeholder and leadership support.
- Website: A Business Case Identifying Excess Cost and Length of Stay of Adverse Patient Safety Events.

Change Concept

CO-PRODUCTION WITH PATIENTS, FAMILIES AND CAREGIVERS

Proactively engage patients and caregivers to effectively self-manage, monitor, and best use the program.

CHANGE IDEAS

- Develop health literate education on the program that includes why to call, when to call, who to call, and how to call.
- Use Teach Back as a method to know if patients and their caregivers know key program specifics like when to call and who to call when an acute event occurs.
- Use scripting for verbal interactions between staff, patients, and caregivers. Use literacy-appropriate written materials in languages most likely to be encountered with your patient population.
- Engage directly with patients and their caregivers to ensure safety and avoid harms. For example, during the pandemic, remind caregivers of the use of hand hygiene and PPE by providers and others coming into the home to prevent the spread of COVID-19 and other communicable diseases. More broadly, this translates to reducing the spread of illness now and in a post-pandemic era.
- Build confidence and put resources in place to increase patient ability to manage chronic conditions at home, including when to reach out for help. Utilize Teach Back or Show Back motivational interviewing and behavior-based coaching with patient education tools to empower and build confidence (e.g., incorporate the My Action Plan tools and Teach Back protocols early in the program).

> Through the I@H/CP programs, education of the patient/caregiver to HOW to respond to an acute event has allowed for an early warning mechanism of response by the patient/caregiver allowing for quicker interventions and positive response.
>
> *— Integra LAN Team Member*

TIPS AND GUIDANCE

- As you develop program education for patients and their caregivers, envision and design a seamless and real-time communication system for the plan of care (e.g., digital/electronic systems, in-home file folders that always have the most up-to-date plan of care available to any clinician in the home).
- Provide patient education materials that serve as reminders and reinforce key aspects of the program such as red/yellow/green condition-specific materials, refrigerator magnets with phone number to call, and program brochures or pamphlets.

LINKED RESOURCES

- Graphic: My Action Plan and Teach Back Protocols — Bellin Bellin developed this patient education resource and tested it during the HomeLAN. They found it helped their patients feel more confident about what to do when they were not feeling well.
- Graphic: Brochure — Bellin Bellin developed this public-facing brochure to share their program with Bellin patients and providers, who were the referral source.
- Graphic: Fridge Magnet - Bellin An easy-to-use refrigerator magnet with Bellin's phone number for patients to call for any reason.
- Graphic: Provider note - leave behind — HealthPartners HealthPartners developed a provider note to leave with the patient which gave the patient written documentation of the visit and this could be shared with family members or caregivers.

> We asked the doctors that are currently using our program to speak to other physicians about the benefits in hopes to encourage more buy in from other doctors.
>
> *— Bellin LAN Team Member*

LINKED RESOURCES

- Graphics: Patient Folder and Materials — Integra Integra developed a patient education packet to leave in the patient's home. They instruct patients to place on top of the refrigerator so that any caregiver, family member, paramedic or provider can easily find it when they come for a visit. The brochure they created (included in the patient packet) is also used to inform the public and Integra providers about the program. The referral document providers can be used when they refer patients to Integra@Home. There are seven resources in all.
    1. Bright yellow packet folder picture
    2. Controlling depression Pamphlet
    3. COPD Control Zones Guide
    4. Heart Failure Control Zones
    5. Lab requisition
    6. Brochure
    7. Referral document
- Website: Self-Management and Patient Engagement Resources — Centre for Collaboration, Motivation, and Innovation
- Graphic: Brochure – Mount Sinai HaH Mount Sinai Hospital at Home's educational brochure and an action guide for patients and caregivers they leave in a packet of materials at the home when they visit.
- Graphic: Patient Education Packet Contents — Mount Sinai HaH Contains 3 resources 1) Patient instructions for the first few days in Hospital at Home, 2) A table for patients/caregivers to record fluid intake, weight, medications, etc. and 3) a table for patients/caregivers to keep track of medications, why they are taking them and frequency.
- Website: End of Life Conversations in the time of COVID

Change Concept

AGE FRIENDLY 4 M'S TO ENHANCE QUALITY AND SAFETY

Provide evidence-based, high-quality clinical care and documentation that care is at least as safe,

CHANGE IDEAS

- Due to the acute, and therefore, risky nature of providing alternative interventions in a home versus a more traditional care setting like a hospital, simulate and iterate program design on a small scale with the program team and partners, including workflows, roles, communication strategies, equipment, medications, and all supplies. Debrief every deployment and look for unintended events and harm and issues to be fixed.
- Develop "balancing" measures to detect any unintended consequences of the new processes (e.g., adverse even reporting system)
- Identify potential safety risks and have reliable plans to mitigate them.
- Educate the program team and staff on safety and harm issues that are unique to the home setting and how to mitigate them.
- Train staff on how to conduct home visits and deliver care in the home setting.
- Identify and meet areas of need that drive poor health outcomes such as food or housing insecurity, poverty, and racism.
- Partner with patients and their caregivers on the design of program services that deliver high-quality clinical care from their perspectives.
- Design a seamless and real-time communication system on the plan of care (e.g., daily interdisciplinary virtual rounds, HIPAA-secure text messaging).

> One of our patients had flank pain and dysuria. Nurse Practitioner assessed went to the home and assessed the patient. A urinalysis was obtained, and antibiotics started and avoided an ED visit.
>
> *— Bellin LAN Team Member*

TIPS AND GUIDANCE

- Design the Age-Friendly Health Systems 4Ms Framework (What Matters, Medication, Mentation, Mobility) into care processes as an effective way to focus on high-quality care for older adults.
- Examples of new training needed include training ED physicians on conducting home visits; training ED physicians, nurses, and social workers on how to conduct virtual visits; training home health nurses in advanced acute care skills.
- Providing evidence-based clinical care was not a challenge expressed by the HomeLAN teams, but good documentation can help overcome risk averse stakeholders and build evidence for the safety and efficacy of home-based acute care for older adults.

LINKED RESOURCES

- IHI website: No Place Like Home: Advancing Safety of Care in the Home
- Document: Home Based Acute Care Playbook v1 — Health Partners HealthPartners playbook they developed as part of the HomeLAN. This comprehensive playbook is used by HealthPartners to orient and train new staff members working in the Home-based Acute Care program.
- Website: Tiger Text — HealthPartners – Provider application for messaging https://tigerconnect.com/
- Website: VSee — Mount Sinai CP - Patient video capability https://vsee.com/

> A small change in a standing order had a profound effect on clinical outcomes.
>
> *— IHA LAN Team Member*

> We have learned that our tests of change are actually having a positive effect on our measures, such as early enrollment of patients. Increased cohesiveness and communication in our team are also helping us to measure incoming data.
>
> *— White Plains LAN Team Member*

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Home-based Acute Care Getting Started Guide:

A Reference for designing and implementing disruptive home-based clinical care models for older adults

The Institute for Healthcare Improvement (IHI) is an independent not-for-profit organization based in Boston, Massachusetts, USA. For 30 years, IHI has used improvement science to advance and sustain better outcomes in health and health systems across the world. IHI brings awareness of safety and quality to millions, catalyzes learning and the systematic improvement of care, develops solutions to previously intractable challenges, and mobilizes health systems, communities, regions, and nations to reduce harm and deaths. IHI collaborates with a growing community to spark bold, inventive ways to improve the health of individuals and populations. IHI generates optimism, harvests fresh ideas, and supports anyone, anywhere who wants to profoundly change health and health care for the better. Learn more at ihi.org.

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