



Home Health Value-Based Purchasing Model

**Acute Care Hospitalization and Emergency Department Use:
Strategies to Mitigate Risks**

Briefing Materials

May 2018



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Introduction

These Briefing Materials provide background information and links to resources regarding strategies to mitigate risk for acute care hospitalization (ACH) and emergency department (ED) use in caring for the home health care patient. They are intended to provide HHA Model participants with a standard level of information prior to the upcoming live virtual learning event. The approach allows us to focus the live event on peer-to-peer interaction that is meaningful for HHAs with varying levels of experience with the topic. The briefing materials also serve as a reference to support future HHA efforts to improve care for home health care patients and reduce risk of ACH and ED Use. This year's learning activities emphasize "Bringing it Home" to help HHAs in the HHVBP Model identify and share experiences with implementing and maintaining effective strategies focused on both the in-home patient interaction as well as organizational efforts within the home health agency.

This document is organized into three sections. The first section describes acute care hospitalization, emergency department use, mitigation of risk, and considerations for social determinants of health. The second section presents the importance of this topic to home health, and includes the relevance to performance improvement in the HHVBP Model. The third section presents strategies in the care of the home health care patient to mitigate risk for acute care hospitalization and emergency department use.

We encourage you to attend the series of three live events focusing on Acute Care Hospitalization and Emergency Department Use: Strategies to Mitigate Risk, on the following Thursdays: May 17th, July 19th, and September 13th. You can register [here](#), or view the event recordings available on [HHVBP Connect](#).

Acute Care Hospitalization, Emergency Department Use, and Mitigation of Risk

Acute Care Hospitalization (ACH): Unplanned hospitalization during the first 60 days of home health, is a claims-based measure used in the HHVBP Model, and is described as the percentage of home health stays in which patients were admitted to an acute care hospital during the 60 days following the start of the home health stay.¹ Emergency Department (ED) Use without Hospitalization is also a claims-based measure used in the HHVBP Model and is described as the percentage of home health stays in which patients used the emergency department but were not admitted to the hospital during the 60 days following the start of the home health stay.²

Both of these HHVBP Model measures are quality measures used in the Home Health Quality Reporting Program (HHQRP).³ The HHQRP includes other claims-based measures that are not included in the HHVBP Model. Exhibit 1 presents four HHQRP measures related to avoidable hospitalization and ED use. As we begin to explore strategies to mitigate risk for acute care hospitalization and emergency department use, it is helpful to compare and clarify the claims-based measures used in the HHVBP Model and in the HHQRP. Efforts to impact these two measures will likely have an impact on all of the HH measures in regard to re-hospitalization and ED use.

Exhibit 1: Claims-based Quality Measures regarding ACH, ED Use, and Rehospitalization

Measure	HHVBP Model Measure	HHQRP Quality Measure
Acute Care Hospitalization During the First 60 Days of Home Health	X	X
Emergency Department Use without Hospitalization During the First 60 Days of Home Health	X	X
Rehospitalization During the First 30 Days of Home Health		X
Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health		X

¹ Outcome Measures Table: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/Home_Health_Outcomes_Measures_Table_OASIS_C2_02_03_17_Final.pdf

² Outcome Measures Table: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/Home_Health_Outcomes_Measures_Table_OASIS_C2_02_03_17_Final.pdf

³ Home Health Quality Measures: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Home-Health-Quality-Measures.html>

Risk Mitigation planning is the process of developing options and actions to enhance opportunities and reduce threats to a goal or objective.⁴ It is an action-oriented term that recognizes the need to identify the risk, consequences, priorities, and monitoring activities. Risk mitigation activities may be designed to reduce risk to an acceptable level, or to eliminate or maintain risk. When applied to the goal of decreasing the frequency of ACH and ED Use by home health patients, risk mitigation strategies may include risk assessment tools, specific actions implemented at specific points during the episode of care, evidence-based best practice guidelines for specific disease states, patient-centered goals and planning, and communication and collaboration within and external to the home health agency.

Psychological and Social Determinants of Health

“Health care is an important factor in improving health, but health outcomes are also strongly influenced by factors outside of the health care system.”⁵ As we strive to reduce hospitalizations and ED use in home health, it is important that we consider all of the factors that influence these outcomes. These include the social determinants of health as well as other elements that have been found to influence hospitalization rates. Social determinants of health are “the structural determinants and conditions in which people are born, grow, live, work and age.”⁶

Given that home health agencies are in a unique position to assess these outside factors directly when working with our patients, it is vital that we look beyond the disease specific solutions to preventing re-hospitalizations when considering our approach to this issue. Some of these factors are in Exhibit 2 The Social Determinants of Health.

⁴ <https://www.mitre.org/publications/systems-engineering-guide/acquisition-systems-engineering/risk-management/risk-mitigation-planning-implementation-and-progress-monitoring>

⁵ Kaplan, R., Spittel, M., & David, D. (Eds). (2015, July). Population Health: Behavioral and Social Science Insights. AHRQ Publication No. 15-0002. Rockville, MD: Agency for Healthcare Research and Quality and Office of Behavioral and Social Sciences Research, National Institutes of Health

⁶ Marmot, M., et al. (2008, Nov 8). Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. *The Lancet*, 372(9650), 1661–1669.

Exhibit 2: The Social Determinants of Health⁷

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education			
Support	Walkability				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations



Why are Acute Care Hospitalization, Emergency Department Use, and Strategies to Mitigate Risk Important to Home Health Care?

As you provide consistent strategies to mitigate risk of Acute Care Hospitalization and Emergency Department Use in the home health patient, you may expect improvement in the quality measures potentially impacted by these interventions. This section highlights current trends, findings from the HHVBP Environmental Scans and Literature, and the HHVBP Measures potentially impacted by strategies implemented in the care of the patient at risk for ACH and ED Use.

Current Trends

Home health care agencies are in a unique position to provide care to those patients at risk for hospitalization and emergency department use, and to those community-dwelling elders who hope to continue living in their place of residence. Current trends provide insight to the challenges experienced in providing care and achieving improvement.

⁷ Heiman, H., & Artiga, S. (2015, November 4). Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity. Retrieved April 2, 2018 from the Kaiser Family Foundation, <https://www.kff.org/disparities-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/>

- In the U.S., rehospitalizations are experienced by nearly 20% of Medicare beneficiaries, or approximately 2 million beneficiaries per year, within 30 days of discharge; 34% are rehospitalized within 90 days.^{8,9}
- Research seeking to understand how HHAs interact with physicians that assign home healthcare services is being undertaken at Johns Hopkins University, Baltimore, MD. Funded by the Alliance for Home Health Quality and Innovation, researchers postulate this study, “Communication and Care Coordination Between Home Health Care Agencies and Clinicians with Providers Who Order and Certify Home Health Care Services,” will explore the linkage between communication and care coordination.¹⁰

Relevant Health Care Literature

Several research articles note the importance of strategy implementation in the effort to mitigate patients’ risk of ACH and ED Use:

- HHAs who had an early intensity of engagement with the 2010 Home Health Quality Improvement National Campaign, as measured through use of activities and resources, experienced improvements in reducing acute care hospitalization rates.¹¹
- To determine the relationship between home health agency work environments and agency-level rates of acute hospitalization and discharges to community living, an analysis of linked Home Health Compare data and nurse survey data from 118 HHAs was conducted. HHAs with positive work environments experienced lower rates of acute hospitalizations and higher rates of patient discharges to community living arrangements.¹²
- Noting the prevention of hospital readmissions to be one of the top priorities of the U.S. health care system, a systematic review of eighteen articles was conducted to examine the current evidence about hospital readmissions from home health care. Reporting wide variation between studies regarding readmission rates and risk factors, recommendations were made for future studies to use multiple national data sources across patients’ care spectrum and statistical modeling to identify *who* among home health care patients are most likely to be

⁸ American Hospital Association. (2011). Examining the drivers of readmissions and reducing unnecessary readmissions for better patient care. Retrieved from <https://www.aha.org/guidesreports/2018-02-09-examining-drivers-readmissions-and-reducing-unnecessary-readmissions>

⁹ Medicare Payment Advisory Commission. (June 2007). Payment Policy for Inpatient Readmissions. Report to the Congress: Promoting Greater Efficiency in Medicare. Washington, DC.

¹⁰ Home Health Care News. Johns Hopkins Studies Broken Communication Between Home Health, Doctors. Retrieved March 29, 2018, from <https://homehealthcarenews.com/2018/03/johns-hopkins-studies-broken-communication-between-home-health-doctors/>

¹¹ Eve Esslinger, E., Schade, C. P., Sun, C. K., Hua Sun, Y., Manna, J., Knowles Hall, B., Wright, S., Hannah, K. L., & Lynch, J. (2014). Exploratory analysis of the relationship between home health agency engagement in a National Campaign and reduction in acute care hospitalization in US home care patients. *Journal of Evaluation in Clinical Practice*. 20(5). DOI: [10.1111/jep.12198](https://doi.org/10.1111/jep.12198)

¹² Jarrín, O., Flynn, L., Lake, E. T., & Aiken, L. H. (2014). Home Health Agency Work Environments and Hospitalizations. *Medical Care*, 52(10), 877–883. DOI: [10.1097/MLR.000000000000188](https://doi.org/10.1097/MLR.000000000000188)



readmitted to the hospital and *why*.¹³

¹³ Ma, C., Shang, J., Miner, S., Lennox, L., & Squires, A. (2017, November 15). The Prevalence, Reasons, and Risk Factors for Hospital Readmissions Among Home Health Care Patients: A Systematic Review. *Home Health Care Management & Practice*, <https://doi.org/10.1177/1084822317741622>

- Participants in a medically tailored, home delivery, meal program were found to experience fewer emergency department visits as well as fewer inpatient admissions and lower medical spending. The findings suggest potential for meal delivery to nutritionally vulnerable patients to address patients' social determinants of health and lower costs associated with health care utilization.¹⁴

Several articles from the 2016 and 2017 Environmental Scans note the effect of social determinants of health and other factors outside of the health care system on acute care re-hospitalization and the use of the ED:

- Researchers found that Medicare Advantage enrollees are significantly less likely than traditional Medicare beneficiaries to have avoidable hospitalizations, with a 10% decrease in the rate of such hospitalizations.¹⁵
- Chen, et al¹⁶, found that in neighborhoods with moderate and high density of African-Americans, African-Americans had 21% and 24% higher risk of 30-day preventable readmissions than Whites, respectively.
- Several studies^{17,18} discovered that the main drivers for frequent ED use among older adults included a mix of sociodemographic and clinical characteristics, rather than disease diagnoses. High ED use was found among elders who described their health as 'poor,' as well as those considered isolated at home.
- In an initiative geared towards reducing readmissions, a New Jersey private duty home care agency developed staff training and protocols focusing on congestive heart failure, acute myocardial infarction, diabetes, and chronic pulmonary obstructive disorder (COPD).¹⁹
- One study examined the impact of paid and unpaid supplementary caregiving on preventable readmissions among Medicare home health beneficiaries with diabetes. They found that

¹⁴ Berkowitz, S.A., Terranova, J., Hill, C., Ajayi, T., Linsky, T., Tishler, L.W., & DeWalt, D.A. (2018, April). Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries. *Health Affairs*, 37(4), <https://www.healthaffairs.org/doi/10.1377/hlthaff.2017.0999>

¹⁵ Petterson, S., Bazemore, A., Jabbarpour, Y., & Wingrove, P. (2016, March 15). Understanding the impact of Medicare advantage on hospitalization rates (Rep.). Retrieved March 24, 2016, from Robert Graham Center website: http://www.graham-center.org/content/dam/rgc/documents/publications-reports/reports/BMA_Report_2016.pdf

¹⁶ Chen, H.-F., Homan, S., Carlson, E., Popoola, T., & Radhakrishnan, K. (2016). The impact of race and neighborhood racial composition on preventable readmissions for diabetic Medicare home health beneficiaries. *Journal of Racial and Ethnic Health Disparities*. <http://doi.org/10.1007/s40615-016-0268-2>

¹⁷ Neufeld, E., Viau, K. A., Hirdes, J. P., & Warry, W. (2015, May). Predictors of frequent emergency department visits among rural older adults in Ontario using the Resident Assessment Instrument-Home Care. *Australian Journal of Rural Health*. <http://doi.org/10.1111/ajr.12213>

¹⁸ Raven, M. C., Tieu, L., Lee, C. T., Ponath, C., Guzman, D., & Kushel, M. (2016). Emergency Department Use in a Cohort of Older Homeless Adults: Results from the HOPE HOME Study. *Academic Emergency Medicine*. <http://doi.org/10.1111/acem.13070>

¹⁹ Mullaney, T. (2016, February 16). How one private duty agency is reducing hospital readmissions. Retrieved February 16, 2016, from <http://homehealthcarenews.com/2016/02/how-one-private-duty-agency-is-reducing-hospital-readmissions/>

beneficiaries with paid supplementary caregivers had 68% higher hazards of readmission due to UTIs, than those with unpaid supplementary caregivers, concluding that unpaid supplementary caregivers can help to prevent patients from using expensive hospital resources.²⁰

- A retrospective cohort study of Medicare patients looked at 30 day readmission rates for pneumonia, heart failure, or acute myocardial infarction. They concluded that disability and social determinants of health influence readmission risk when added to the current Medicare risk adjustment models, but the effect varies by condition.²¹
- Fathi et al²² used an assessment tool to look at restricted life-space and characteristics of community-dwelling adults hospitalized for congestive heart failure (CHF) or chronic obstructive pulmonary disease (COPD) to determine whether baseline restricted life-space predicts hospital readmission. The LSA or Life Space Assessment is a tool that measures mobility by considering how frequently people move within defined zones such as their home or their town. They concluded that baseline restricted life-space (those considered homebound or semi homebound) was associated with greater risk of hospital readmission within 90 days after hospital discharge.

Related HHVBP Measures

As you implement consistent strategies to mitigate the risk of ACH and ED Use for patients serviced by your agency, you will want to monitor improvement in your patients and your related quality measures. This section provides information about three HHVBP measures potentially impacted by strategies designed to mitigate risk of ACH and ED Use. The measure specifications and average performance in each HHVBP Model state are provided for each of the following measures:

- Acute Care Hospitalization: Unplanned hospitalization during first 60 days of home health
- Emergency Department use without hospitalization
- Discharged to the Community

The average performance graphs illustrate performance on each measure for each state in the HHVBP Model from before the HHVBP Model began (fourth quarter 2015) through currently available data.

²⁰ Chen, H. F., Popoola, T. O., & Suzuki, S. (2017). Does paid versus unpaid supplementary caregiving matter in preventable readmissions? *American Journal of Managed Care*, 23(3), e82–e88

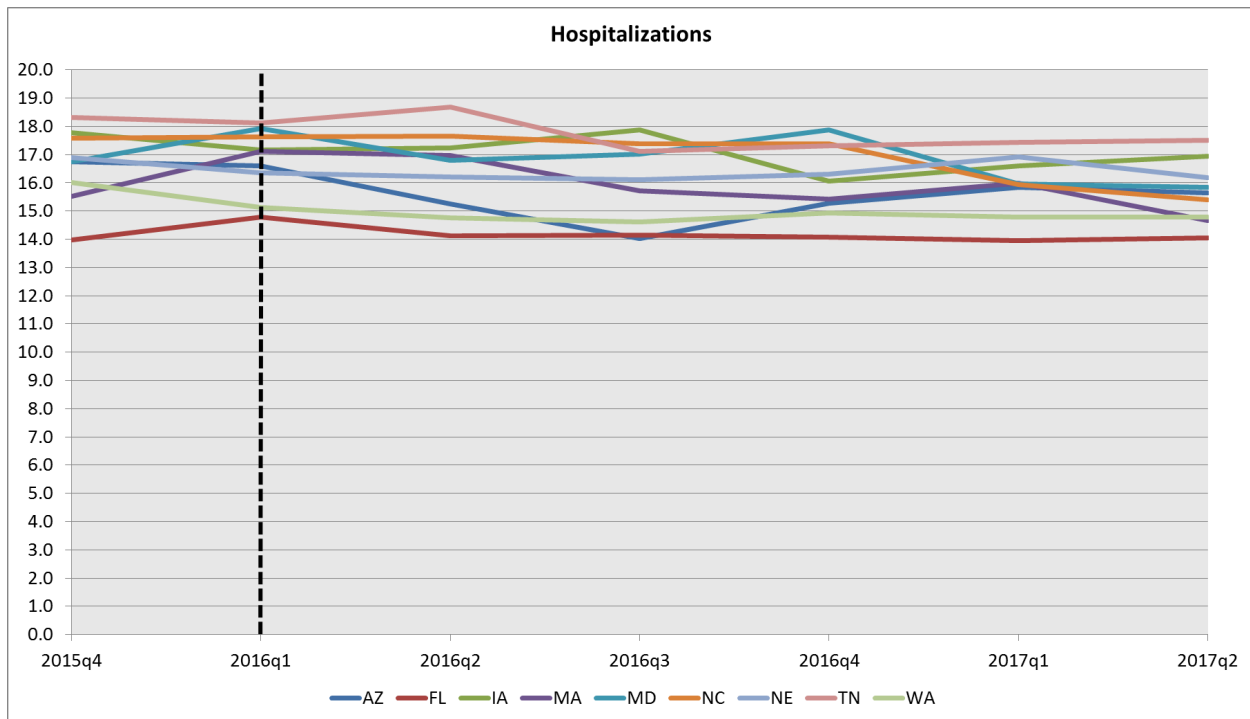
²¹ Meddings, J., Reichert, H., Smith, S. N., Iwashyna, T. J., Langa, K. M., Hofer, T. P., & McMahon, L. F. (2016). The Impact of Disability and Social Determinants of Health on Condition-Specific Readmissions beyond Medicare Risk Adjustments: A Cohort Study. *Journal of General Internal Medicine*, 32(1), 71–80. <https://doi.org/10.1007/s11606-016-3869-x>

²² Fathi, R., Bacchetti, P., Haan, M. N., Houston, T. K., Patel, K. s., & Ritchie, C. (2017). Life-Space Assessment Predicts Hospital Readmission in Home-Limited Adults. *Journal of the American Geriatrics Society*, 65(5), 1004–1011

Acute Care Hospitalizations

Description	Percentage of home health stays in which patients were admitted to an acute care hospital during the 60 days following the start of the home health stay.
Numerator	Number of home health stays for patients who have a Medicare claim for an unplanned admission to an acute care hospital in the 60 days following the start of the home health stay.
Denominator	Number of home health stays that begin during the 12-month observation period.
Measure-specific Exclusions	Home health stays that begin with a Low Utilization Payment Adjustment (LUPA) claim. Home health stays in which the patient receives service from multiple agencies during the first 60 days. Home health stays for patients who are not continuously enrolled in fee-for-service Medicare for the 6 months prior to the home health stay. Home health stays for patients who are not continuously enrolled in fee-for-service Medicare for the 60 days following the start of the home health stay or until death.
OASIS-C2 Item(s) Used	None – based on Medicare FFS claims

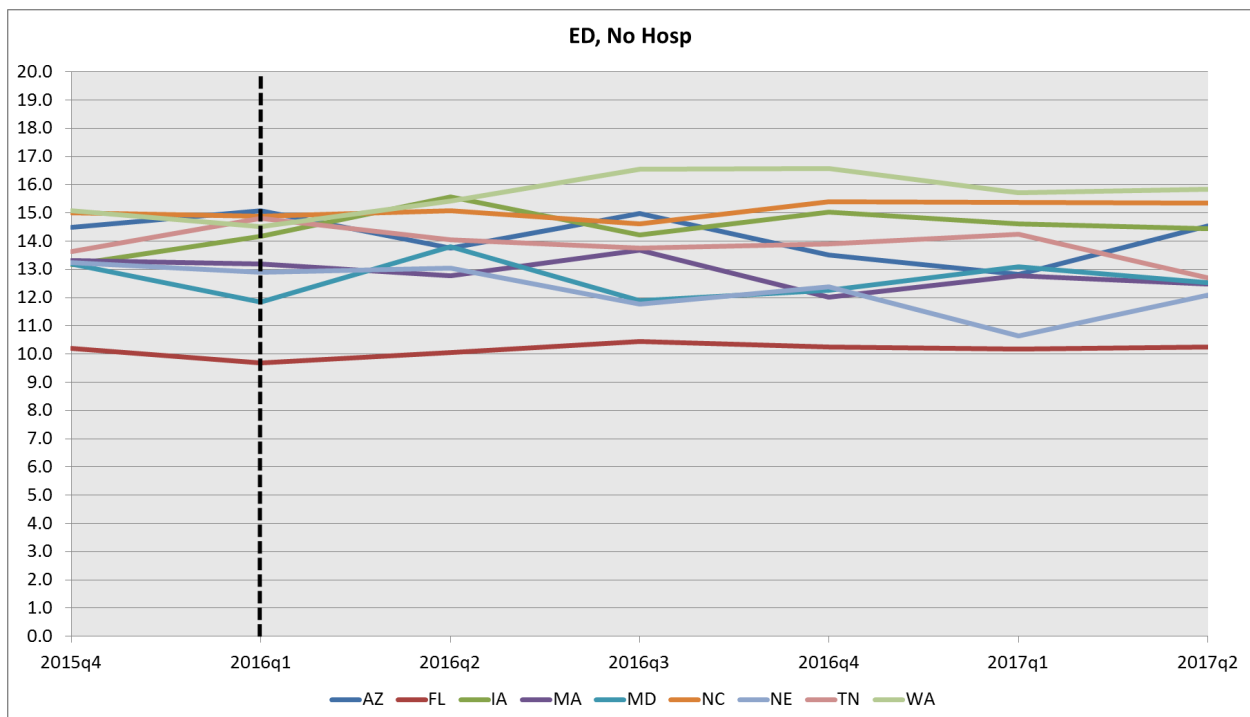
Exhibit 3: Hospitalizations: 2015Q4 – 2017Q2



Emergency Department Use without Hospitalization

Description	Percentage of home health stays in which patients used the emergency department but were not admitted to the hospital during the 60 days following the start of the home health stay.
Numerator	Number of home health stays for patients who have a Medicare claim for outpatient emergency department use and no claims for acute care hospitalization in the 60 days following the start of the home health stay.
Denominator	Number of home health stays that begin during the 12-month observation period.
Measure-specific Exclusions	Home health stays that begin with a Low Utilization Payment Adjustment (LUPA) claim. Home health stays in which the patient receives service from multiple agencies during the first 60 days. Home health stays for patients who are not continuously enrolled in fee-for-service Medicare for the 6 months prior to the home health stay. Home health stays for patients who are not continuously enrolled in fee-for-service Medicare for the 60 days following the start of the home health stay or until death.
OASIS-C2 Item(s) Used	None – based on Medicare FFS claims

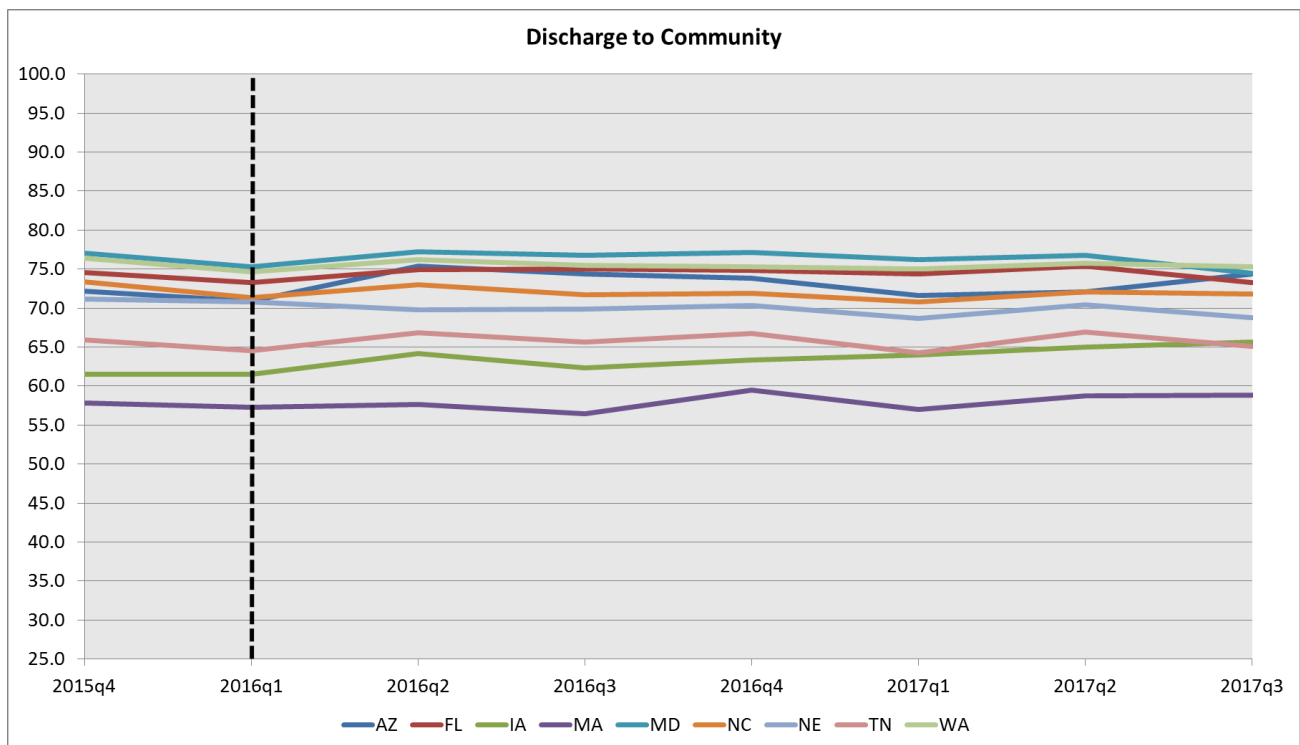
Exhibit 4: ED Use Without Hospitalizations: 2015Q4 – 2017Q2



Discharged to Community

Description	Percentage of home health episodes after which patients remained at home.
Numerator	Number of home health episodes where the assessment completed at the discharge indicates the patient remained in the community after discharge.
Denominator	Number of home health quality episodes ending with a discharge or transfer to inpatient facility during the reporting period, other than those covered by generic or measure-specific exclusions.
Measure-specific Exclusions	Home health quality episodes that end in patient death.
OASIS-C2 Item(s) Used	(M0100) Reason for Assessment, (M2420) Discharge Disposition

Exhibit 4: Discharged to Community: 2015Q4 – 2017Q3



Improving Care for Patients at Risk for Acute Care Hospitalization and Emergency Department Use

This section provides some considerations for planning improvement efforts in the care for patients at risk for acute care hospitalization and emergency department use. Strategies to mitigate risk, including considerations for social determinants of health, may yield improvement in multiple HHVBP measures and are included in this section.

A prior learning event, *Claims-Based Measures: Acute Care Hospitalization & Emergency Department Use (5/18/17)*, discussed measure calculations and shared multiple resources for improving these measures. A recording of this learning event and the materials are available for review on *HHVBP Connect*.

Planning

Before an organization begins an improvement effort, it can be helpful to conduct a brief self-assessment, establishing the goals of the effort, and planning for implementation. Self-assessment of an organization's *current experience* caring for the patient at risk for acute care hospitalization and emergency department use, as well as interventions consistently implemented by agency staff to mitigate these risks, begins with exploring the following questions:

- What characteristics or trends do we see in our patients experiencing acute care hospitalization and emergency department use?
- What characteristics or trends are evident in our patients at risk for ACH and ED Use?
- What strategies to mitigate risk are currently and consistently used in our agency?
- What considerations are given to social determinants of health influencing these patients?
- How are we doing in the HHVBP measures potentially impacted by these strategies?
- How would we describe our current experience?
- To ensure ultimate buy-in from staff, have we clearly and concisely stated an agency goal and why it is important?
- What milestones or metrics will we use to measure progress?

When *planning for implementation*, consider:

- What are the immediate next steps?
- Who can help and how?
- What resources and data do we have and need?
- What strategies must be included, used consistently, and by whom?
- Which interventions will focus on the patient-clinician encounter and which interventions will focus on the system/agency?

A brainstorming worksheet is provided as **Appendix 1**. It may be used as a planning tool, not only to explore these questions prior to the live virtual HHVBP learning event but also to plan improvement efforts in your agency. The HHVBP learning event will allow participants to explore these questions with other agencies.

Family caregivers have been described as the front line of defense against costly hospital readmissions and are vital to improving care transitions.²³ The brief videos below highlight the role of family caregivers. They may be useful in educating your patients and personnel on the types of strategies that can be used to avoid unnecessary hospitalizations and ED use. These videos are publically available and are part of a series, *Supporting Family Caregivers: No Longer Home Alone*, published as part of a collaboration between the AARP Public Policy Institute and the American Journal of Nursing. This collaboration is the result of AARP focus groups concluding that family caregivers are not being given the information needed to manage the complex care regimens of their family members. The series of videos aims to help providers help informal caregivers as they assist patients at home. One suggestion is to select one or two of these videos based on clinician recommendations, trending, or potentially avoidable events in your HHA. Perhaps through viewing and discussion during a team meeting, clinicians might share their examples and recommendations in working with informal caregivers regarding the specific topic. Are some of these clinician recommendations aligned with teach-back, motivational interviewing, patient/caregiver engagement, adherence strategies, or considerations of health literacy? These may be helpful themes to note during the summary of your staff's discussion regarding strategies for success in working with patients' informal caregivers.

1. [Supporting Family Caregivers: No Longer Home Alone: Medication Management for People with Dementia](#)
2. [Supporting Family Caregivers: No Longer Home Alone: What to Do When Someone Falls](#)
3. [Supporting Family Caregivers: No Longer Home Alone: Preparing Your Home for Safe Mobility](#)
4. [Supporting Family Caregivers: No Longer Home Alone: Pressure Ulcers: Prevention and Skin Care](#)
5. [Supporting Family Caregivers: No Longer Home Alone: Diabetic Foot Care: Treatment and Prevention](#)
6. [Supporting Family Caregivers: No Longer Home Alone: Caring for and Maintaining Ostomy Bags](#)

Strategies

Assembled here are strategies in caring for patients at risk for acute care hospitalization and emergency department use. These strategies have been identified by a review of professional organization publications, HHVBP Environmental Scans and other literature, and during discussion with one of our guest presenters, Dr. Rose Madden-Baer, VNSNY. As you review the information below, consider identifying not only strategies now used in your agency but also those which may be helpful to your efforts to provide consistent and effective care for those patients at risk for acute care hospitalization and emergency department use.

²³ AARP. (2018). Can Caregivers Help Reduce Hospital Readmissions. Retrieved April 18, 2018 from AARP, <https://www.aarp.org/politics-society/advocacy/caregiving-advocacy/info-2014/caregivers-reduce-readmissions.html>

Visiting Nurse Service of New York's 5 Critical Drivers

Dr. Madden-Baer in her role as Senior Vice President for Population Health Management, Visiting Nurse Service of New York (VNSNY), has noted 5 Critical Drivers, currently used in a model of care at VNSNY that has resulted in an 8-10% reduction in the frequency of ACH and ED Use. These include 1) Physician appointment within 7 days of admission to home care, 2) Medication Reconciliation, 3) Identification of caregiver support, 4) Self-management barriers assessed and documented, and 5) Durable Medical Equipment critical to home use and safety.

Risk Tools

Identification of a patient's risk for acute care hospitalization and emergency room use provides the opportunity to identify strategies which may be aligned with a patient's specific risk assessment. Two tools are available as Appendices for your review: The Hospitalization Risk Assessment (Appendix 2) and the Modified LACE Risk Assessment Tool (Appendix 3). During the recent Learning Event *The Patient with Dyspnea: Respiratory Interventions & Chronic Disease Management (3/22/18)*, the guest speaker, Rachel Manchester, Providence Health & Services, described how Providence Health had modified the LACE Tool for alignment with the agency's population. Risk Tools may be provided by the Electronic Medical Record software used in your agency or by a vendor. Aligning the risk tool with your agency's trends and patient characteristics supports success in the use of this strategy.

Patient-Centered Goals and Planning

Patient-centered goals and planning acknowledges the patient as the focus of the care and empowers the patient to actively participate in his or her care. While acute care hospitalizations and emergency department visits have often felt beyond the control of the home care provider, supporting the patient and caregiver through decision-making and knowledge acquisition provides an opportunity for alignment of expectations regarding home care. The Advance Care Planning discussion with the patient and caregiver provides another opportunity for engagement and clarity while the patient attempts to manage changes in condition and the treatment regimen.

Chronic Disease Management

Disease specific guidelines incorporating evidence-based best practices may already exist in your agency's EMR, or you may need to include these as you work to promote consistent practices by all clinicians or staff. Chronic Disease Management Strategies aligned with identifying changes in condition early and taking action to prevent decline or urgent care delivery in the hospital or ED, include but are not limited to: a) scheduling SOC, b) front-loading of visits, c) internal and external referrals such as PT, OT, SLP, home health aide, MSW, Pharmacist, Elder Services, Case Manager, Nutritionist, d) Telehealth and other technology, e) Motivational Interviewing, Teach-back, and Health Literacy assessment, and f) Self/Caregiver Management of health needs, including decision-making.

Communication & Collaboration

Communication and collaboration within the home health care agency and with those providers external to the organization assist in consistent messaging and accurate information during the episode of home care and afterwards. SBAR (Situation, Background, Assessment, Recommendation) is used as a communication technique for effective and efficient communication between members of the team. Care Transitions may take the form of a change in setting or providers, and it is during those times that

changes in condition may occur. As a result, it is helpful to anticipate the time and form of the care transition and plan for the change, providing “hand-off” information to the appropriate persons and helping the patient and caregiver identify actions which might be needed. Another form of collaboration is evident in a patient-focused case conference, scheduled to support a number of providers as they coordinate efforts to provide one patient the care that is needed.

Clinical and Organizational Strategies for Population-Based Care Management and Person-Centered Care

Dr. Madden-Baer described the following strategies in this effort:

- Person/caregiver is at the center of all efforts. Interactions may be face-to-face, telephonic, and/or electronic.
- Predictive analytics and risk stratification based on the comprehensive assessment data informs the types and timing of interventions and who delivers the actions. Evidence-based tools may include Adherence to Refills & Medication Scale (ARMS) and LACE Tool (Length of Stay, Acuity of Admission, Co-morbidities, Emergency room visits in past 6 months).
- Person engagement and patient activation may be measured and motivational interviewing conducted. Tools such as Patient Activation Measure (PAM), Altarum Consumer Engagement (ACE), Readness and Confidence rulers, Health literate “stop lights”, Hamilton Anxiety Rating Scale (HAM-A), and Patient Health Questionnaire (PHQ-9) are evidence-based tools to consider.
- Person-Centered Goals and Care Plan. Determination and alignment of patient’s goal and plan for action.
- Case management assessment and care coordination by primary care coordinator RN, and use of evidence-based tools. Evidence-based best practice resources and care standards are used to fullest extent possible, in the patient assessment and care.
- Health Coaching and Support. Patient services include provider who is knowledgeable in community resources, and is able to coach and support patients/caregivers in use of these resources.
- Collaboration with primary care, partners, and other providers. Communication during care transitions requires a “hand-over” approach and effective use of SBAR communication methods.
- Financial and Clinical Outcomes and Reporting. Data is utilized to determine “value”, and to analyze the patient condition, care provided, and outcomes. Data may be “drilled down” to patient level details to understand if course corrections should have been made. As providers align, data is shared and monitored.

Summary of Strategies

Appendix 4 is a table listing a number of strategies in the five groupings described above. This table was assembled following a review of recommendations by professional organizations, the home health literature, and the model of care provided patients by VNSNY. You can use this table as a worksheet to identify strategies for risk mitigation that are already being used consistently in your agency and at what points in time, as well as to plan for changes. This may be followed by determining additional performance expectations, or what additional strategies are needed, when the actions should consistently take place, and by whom. While aiming for improvement remember to keep your goals and plan realistic so the chances for success are supported. Once improvements are experienced, additional efforts may be added as you strive to improve the HHVBP Model Measures of Acute Care Hospitalization, Emergency Department Use without Hospitalization, and Discharged to Community.



Appendix 1: Brainstorming Worksheet (2 pages)

**BRAINSTORMING WORKSHEET:
Strategies to Mitigate Risk of Acute Care Hospitalization (ACH) & Emergency Department (ED) Use**

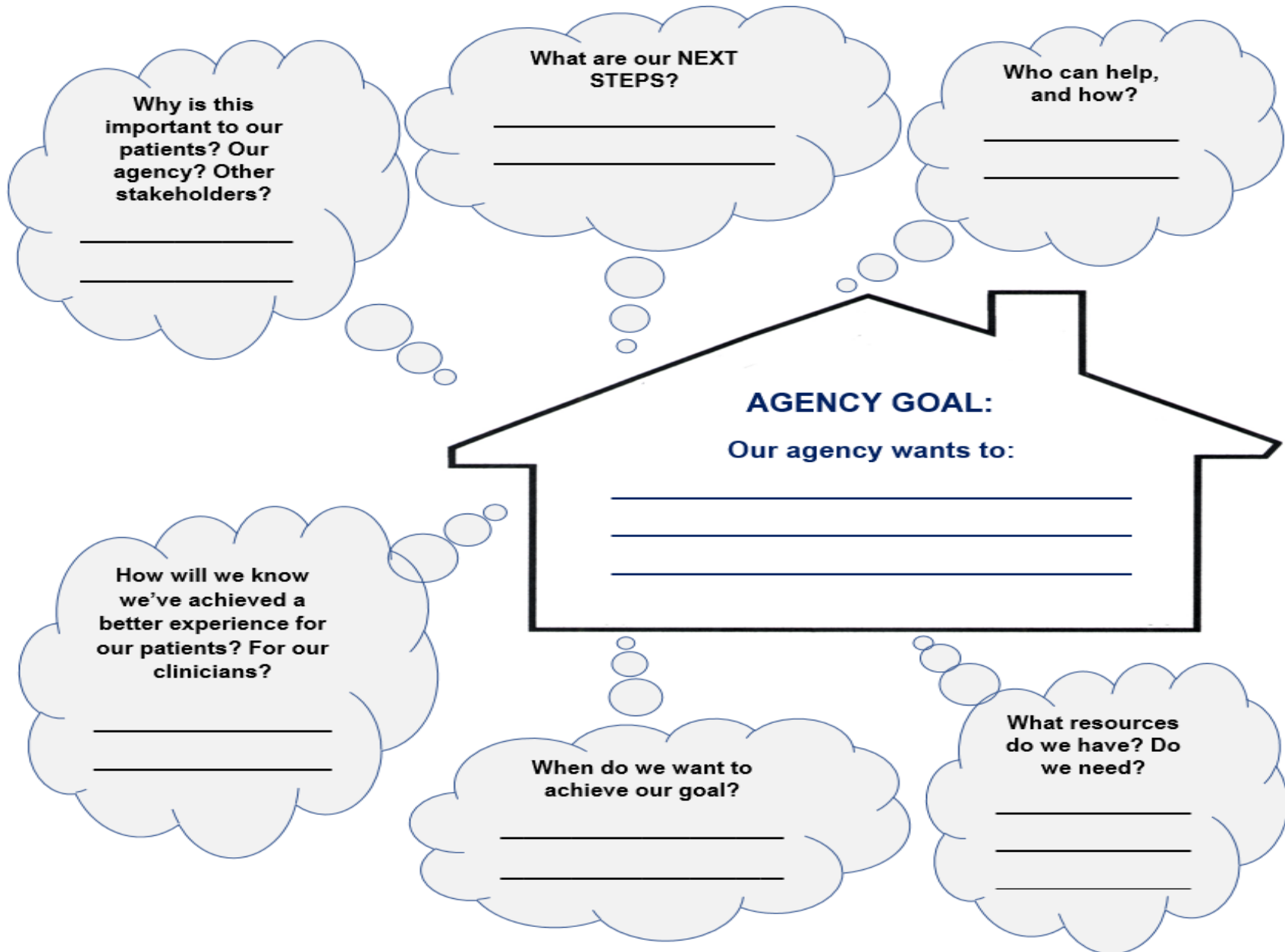
What strategies are used in our agency to reduce risk of ACH & ED Use?

What characteristics or trends do we see in our patients who are hospitalized or visit the ED?

Our Current Experience could be described as:

How are we doing in the HHVBP measures potentially impacted by these strategies: Acute Care Hospitalizations? Emergency Department Use without hospitalization? Discharged to the Community?

BRAINSTORMING WORKSHEET:
Strategies to Mitigate Risk of Acute Care Hospitalization (ACH) & Emergency Department (ED) Use



Why is this important to our patients? Our agency? Other stakeholders?

What are our NEXT STEPS?

Who can help, and how?

AGENCY GOAL:
Our agency wants to:

How will we know we've achieved a better experience for our patients? For our clinicians?

When do we want to achieve our goal?

What resources do we have? Do we need?



Appendix 2: Hospital Risk Assessment Tool

Hospitalization Risk Assessment

Purpose: Screening tool to identify those at risk for hospitalization.

Patient Name: _____ Record # _____

Date: _____

Prior pattern: Check all that apply			
<input type="checkbox"/> > 1 Hospitalizations or ER visits in the past 12 months (M1032)	<input type="checkbox"/> History of falls * (M1032 and M1910)		
Chronic conditions: Check all that apply (M1020/1022/1024)			
<input type="checkbox"/> HF (M1500 and M1510)	<input type="checkbox"/> Chronic skin ulcers (<i>Wound consult if indicated for any wounds</i>)		
<input type="checkbox"/> Diabetes			
<input type="checkbox"/> COPD	<input type="checkbox"/> HIV/AIDS		
Risk Factors: Check all that apply			
<input type="checkbox"/> Discharged from hospital or skilled nursing facility (M1000)	<input type="checkbox"/> Help with managing medications needed (M2020) ▶ ★		
<input type="checkbox"/> More than 2 secondary diagnoses (M1022 and 1024)	<input type="checkbox"/> Non-compliance with medication regimen ◆ ★		
<input type="checkbox"/> Low socioeconomic status or financial concerns ◆	<input type="checkbox"/> Confusion (M1710) ◆ ★		
<input type="checkbox"/> Lives alone (M1100) ▶ ◆	<input type="checkbox"/> Pressure ulcer (M1300, M1302 and M1306) ★		
<input type="checkbox"/> Inadequate support network (M1100) ◆	<input type="checkbox"/> Stasis ulcer (M1330) ★		
<input type="checkbox"/> ADL assistance needed ▶ (M2100 and M2110)	<input type="checkbox"/> Overall Poor Status/Prognosis (M1034) ■		
<input type="checkbox"/> Home safety risks ▶ ◆	<input type="checkbox"/> Low literacy level ◆		
<input type="checkbox"/> Dyspnea (M1400) ▶ ★	<input type="checkbox"/> Depression (M1730) ◆		
▶ Consider Therapy referral (PT, OT, ST)	◆ Consider MSW referral	■ Consider Hospice referral	★ Consider RN referral, if not ordered
Total # of checked boxes is _____. Your agency may want to select a threshold score to target patients at high risk. (For example: 5 or greater risk factors may indicate that the patient is at risk for hospitalization. Note: This number is for convenience only and has not been tested or validated. The agency may modify the score based upon the needs of their patient population.)			
Carry out patient specific interventions as appropriate/ordered, if patient is at risk for hospitalization: (Coordinate with M2250)			
Referrals: <input type="checkbox"/> SN <input type="checkbox"/> PT <input type="checkbox"/> OT <input type="checkbox"/> ST <input type="checkbox"/> MSW <input type="checkbox"/> HHA <input type="checkbox"/> Dietary Consultant <input type="checkbox"/> Other:	<input type="checkbox"/> Medication Management <input type="checkbox"/> Medication Reconciliation • Assess patient's: knowledge, ability, resources and adherence • Education	<input type="checkbox"/> Patient/family education <input type="checkbox"/> Enrollment into a disease management program (specify):	
<input type="checkbox"/> Hospice/Palliative Referral	<input type="checkbox"/> Phone Monitoring	Immunizations (M1040, M1045, M1050, M1055) <input type="checkbox"/> Influenza <input type="checkbox"/> Pneumococcal	
<input type="checkbox"/> Individualized Patient Emergency Care Plan	<input type="checkbox"/> Front-loading Visits	<input type="checkbox"/> Care Coordination (Physicians, hospitals, nursing homes...)	
<input type="checkbox"/> Fall Prevention Program	<input type="checkbox"/> Telemonitoring	<input type="checkbox"/> Other:	

Notify the following, as appropriate, if patient is at risk for hospitalization:

<input type="checkbox"/> Physician Correlate with M2250 for physician notification of specific parameters/interventions	<input type="checkbox"/> Interdisciplinary Team	<input type="checkbox"/> On Call Staff	<input type="checkbox"/> Payer: (e.g. Managed Care Organizations) <input type="checkbox"/> Other:
	<input type="checkbox"/> Patient/family/caregiver	<input type="checkbox"/> Agency Case Manager	

Clinician Signature: _____ Date: _____

Adapted from Personal Touch Home Care, VA 6/25/04 Professional Practice Model.
Revised 12/21/09 to correlate with OASIS-C.

The following articles provide more information on risk assessments:
Rosati, R.J., Liping, H., Navaie-Waliser, M., & Feldman, P.H. (2003) Risk Factors for Repeated Hospitalizations among Home Healthcare Recipients. *Journal for Healthcare Quality*, 25(2).
Fortinsky, RH, Madigan, EZ, Sheehan, TJ, Tullai-McGuinness, S. & Fenster, JR. (2006) Risk factors for hospitalization among Medicare home care patients. *West J Nurse Res*, 28(8).

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Appendix 3: Modified LACE Tool



L=Length of hospital stay
 A=Acuity on admission
 C=Comorbidity
 E=Emergency Dept. visits

Modified LACE Tool

Attribute	Value	Points	Score
Prior Admit Length of Stay If no History prior Admission Give points for average LOS	Less 1 day	0	
	1 day	1	
	2 days	2	
	3 days	3	
	4-6 days	4	
	7-13 days	5	
	14 or more days	6	
Acute Admission	Inpatient	3	
	Observation	0	
Comorbidity (Cumulative to a max of 6 pts)	No prior history	0	
	DM no complications, Cerebrovascular disease, Hx of MI, PVD, PUD, Alcoholism, Smoking	1	
	Mild liver disease, DM w/complications, CHF, COPD, Cancer, Leukemia, Lymphoma, any tumor, renal disease	2	
	Alzheimer's, Dementia, Sickle Cell, Auto-immune Disorder or Connective Tissue Disease	3	
	Cirrhosis, Hepatitis, Liver Disease or HIV infection	4	
	Metastatic cancer	6	
Emergency room visits during previous 6 months	0 visits	0	
	1 visits	1	
	2 visits	2	
	3 visits	3	
	4 or more visits	4	
	Take the sum of the points and enter the total		
	*If LACE score is 11 or greater, patient is at high risk for admission		

Directions: Points are assigned per category and totaled to identify those patients that are at risk of readmission. Source: <http://fl.ehhs.org/portals/6/Tools/LACERiskAssessmentTool.pdf>



Appendix 4: Summary of Strategies



Strategies to Mitigate Risk of ACH & ED Use*

Strategies to Mitigate Risk	Referral/Intake	SOC/ROC and initially in Quality Episode	During the Quality Episode, by Clinician, by Agency
5 Critical Drivers²⁴			
1. MD Appt within 7 days			
2. Medication Reconciliation			
3. Caregiver Support			
4. Barriers to Self-Management			
5. Critical Equipment			
Risk Tools			
o Hospitalization Risk Assessment			
o Modified LACE Tool			
o Community Assessments Risk Screen			
o MAHC-10			
o Pressure Injury Risk			
o Depression: PHQ-2, PHQ-9			
o Anxiety: HAM-A			
o _____ Tool (EMR, Vendor, other)			
Patient-Centered Goals & Planning			
o Patient-Centered Goals			
o Advance Care Planning			
Chronic Disease Management			
o Evidence-Based Best Practice			
o Disease Guidelines			
o Scheduling SOC/ROC & Front-loading			
o Referrals: Interagency, External			
o Telehealth, technology			
o Health Literacy, Zone Tools			
o Motivational Interviewing, Teach-back			
o Self/Caregiver Management			
Communication & Collaboration			
o SBAR			
o Care Transitions			
o Hand-offs/Hand-overs			
o Case Conferencing			
o Stakeholder updates/feedback/data			

*Be selective regarding which Strategies to be used with your agency's population

²⁴ Madden-Baer, R. (2018, May 17). HHVBP Model Learning Event, Acute Care Hospitalization and Emergency Department Use: Developing Successful Value-Based Care Strategies



Sources:

Home Health Quality Improvement (HHQI). Best Practice Intervention Package (BPIP): Fundamentals of Reducing Hospitalizations. <http://www.homehealthquality.org/CMSPages/GetFile.aspx?guid=7922dd5a-dac7-46ed-aabe-24c664a5cbc3>

Panozzo, G., Rossetti, J., & Hess, K. (2017, July/August). The Home Healthcare Universal Best Practice Protocol. *Home Healthcare Now*, 35(7), 378-385. DOI: [10.1097/NHH.0000000000000561](https://doi.org/10.1097/NHH.0000000000000561)

VNAA/ElevatingHOME. Blueprint for Excellence: Prevent Readmissions/Promote Community Stay. <https://www.elevatinghome.org/preventingreadmit+dtc>