The Delta Study to Reduce Hospitalizations:

A National Study to Reduce Avoidable Hospitalizations through Home Care

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Dear Homecare Professional:

It is with great pleasure that we enclose ***The Delta Study to Reduce Hospitalizations: A National Study to Reduce Avoidable Hospitalizations through Home Care***. Of all of the national studies that we have sponsored, and this is our third, we are most excited to lead this discussion around reducing avoidable hospitalizations.

The interest and participation in this study far exceeded that of our previous studies, with over 3,600 suggested questions, nearly 800 completed surveys, and over 3,000 registrations for the national webinar. The 792 completed surveys took an average of 27 minutes each, all without remuneration! This high degree of participation, resulting in the largest study of its kind in the history of homecare, reflects the homecare industry's interest in doing the right thing for our patients.

Our ability to reduce avoidable hospitalizations will demonstrate home care's important role in solving our nation's healthcare crisis. In fact, every 3% reduction in the hospitalization rate equates to nearly 100,000 patients staying in their homes and approximately $700M in savings to the Medicare program. The report will provide your agency with the insights necessary to impact the lives of *your* patients. We have underwritten this important work so that the entire industry could benefit, whether a provider, a consultant, or a vendor.

What results do you want to achieve in your agency? If given the opportunity, we would love to provide your agency with guaranteed results of your own. We call it Delta Guaranteed. Please feel free to contact us at www.DeltaHealthTech.com to learn more.

Thank you for your continued contributions to our industry.

Sincerely,

Keith R. Crownover
President & CEO

January 13, 2012

Dear Healthcare Provider

The National Association for Home Care & Hospice (NAHC) is the nation's largest trade association representing the interests and concerns of home care providers. NAHC was founded with the intention of encouraging the development and the delivery of the highest quality of medical, social, and supportive services to the aged, infirm, and disabled. NAHC realized the excellent opportunity that partnering with Delta Health Technologies and Fazzi Associates provided in *The Delta Study to Reduce Hospitalizations: A National Study to Reduce Avoidable Hospitalizations through Home Care* to both NAHC and the thousands of home health agencies across the country to further achievement of these goals.

The cost of hospitalizations must be assessed in terms of physical and psychological costs to patients, as well as the financial cost to society. Reduction of unnecessary hospitalization, along with an increase in the delivery of quality services in the home and community, have been identified as critical components in our government's initiative to transform health care in this country. NAHC believes that home health agencies will play a major role in this process by maximizing the effectiveness of health care services in patients' setting of choice (their own homes) and minimizing health care costs. The dissemination of information about effective clinical and organizational practices identified in the **Study to Reduce Avoidable Hospitalizations through Home Care** are essential for home health agencies to achieve the national goals of highest quality care at the lowest cost. NAHC looks forward to continuing its work with home health agencies across the country, Delta Health Technologies, and Fazzi Associates in ongoing work to promote the use of these practices.

Sincerely,

Val J. Halamandaris

President

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Executive Summary

The Delta Study to Reduce Avoidable Hospitalizations was the largest and most comprehensive study ever taken by the home care field on this critical issue. The importance of the study is probably best demonstrated by looking at the number of people annually served by home care and the number of people hospitalized.

According to the 2011 Statistical Supplement of Medicare & Medicaid Research Review, 3.4 million Medicare recipients were served by over 11,000[1] home health care agencies in 2010 throughout the country. Given that CMS' risk-adjusted Home Health Compare reports the home care hospitalization rate to be 27%, that means that approximately 918,000 patients are hospitalized every year. And when you factor in a MedPAC estimate that the average cost of one preventable hospital readmission is $7,200[2], the annual cost for home care patients hospitalized is 6.6 billion dollars.

For the home care industry as well as the nation, lowering hospitalizations means lowering overall cost, lowering high rates of hospitalizations in home care agencies, and, most importantly, lessening the anguish, fear, and frustration that home care patients experience when they find themselves being hospitalized when it was avoidable. This study was designed to respond to all three realities.

Findings

What was clear from the study was that agencies throughout the country had a shared understanding of the various hospitalization reduction practices and intentionally used them at a high rate. **Five major findings emerged.**

1. **Home care agencies nationwide share a strong understanding for preferred hospitalization reduction efforts.** The top two strategies - Fall Prevention (94.9%) and Organizational Awareness and Support (92.5%) – were used by over 90% of all respondents while a third strategy, front loading, was just behind (89.0%). In fact, the top 15 strategies were used by over 60% of respondents. Analysis of all respondents showed that the average agency intentionally used at least 10 strategies. *See page **50** for percent of agencies using each strategy.*

2. **Most hospitalization reduction strategies do not cost agencies additional funds.** While it is true that some strategies, such as telehealth or data-driven interventions, have a cost associated with the use of the strategies, most strategies do not have additional costs and can be easily integrated into the normal workings of the agency. In fact, the top five strategies (including two already required when doing the OASIS assessment) do not require additional expenditures by agencies.

3. **While there are many hospitalization reduction or avoidance practices, they tend to group around four major types of strategies.** In analyzing the results of the study, it became clear that there was a strong differentiation in the type or focus of strategies used. Some of the strategies focused on the interaction with patients. Others were preparation strategies: ones that would need to be initiated before patients even arrived. Still others focused on the use of data. This insight actually provides agencies with the opportunity to develop separate task groups to explore and implement strategies that are in the same category of interventions. The four major categories of strategies that became apparent during the analysis are as follows.

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[1] MedPAC, A Data Book: Health care spending and the Medicare program, June 2011; Section 8, Post-acute care
[2] MedPAC Report to the Congress: Promoting Greater efficiency in Medicare, June 2007

Included are the four categories and the specific strategies that are part of each category. The number preceding each strategy is the frequency ranking of that strategy.

A. **Patient Care:** Strategies that are directly provided to patients or their families:

    1 Fall Reduction Program
    4 Medication Management
    9 Patient/Caregiver Education
  15 Disease Management
  17 Telephonic Practices
  21 Telehealth

B. **Organizational Structure:** Strategies related to the structuring of the agency; management initiatives that the agency implemented to improve its ability to reduce avoidable hospitalizations:

    2 Agency Awareness and Support
    3 Front Loading
    5 Twenty-four Hour Availability/Response System
    6 Staff Education
    7 Care Management
    8 One Person in Charge Strategy
  11 Formal Hospitalization Avoidance Program

C. **Health System-wide Strategies:** Strategies that the agency initiates with other segments of the traditional or non-traditional health system to better support patients and to establish protocols and clarify strategies for reducing the possibilities of hospitalizations:

  16 Non-Medical Community Agency Support Services
  18 Physician/Home Care Hospitalization Avoidance Protocol
  19 Care Transitions Strategy
  20 Hospital/Home Care Hospitalization Avoidance Protocol
  22 Emergency Room/Home Care Hospitalization Avoidance Protocol

D. **Data Driven Strategies:** Strategies that use data as a major source for identifying the causes and trends of hospitalizations for high risk patients who require more intentional interventions:

  10 Risk Assessment and Management
  12 Audit Practice Strategy
  13 Point of Care Strategy
  14 Data Driven Strategy

4. **Use of particular strategies is not what distinguished successful agencies from non-successful agencies.** One of the most profound findings of the entire study related to comparing the practices used by the most successful agencies (those with the lowest hospitalization rates) with the least successful (those with the highest rates). They were nearly identical in the frequency of use and in the percentage of agencies using the strategy. In other words, the most successful agencies and the least successful agencies in the country use the same strategies the same percentage of time. What was clear was that the magic practice or practices, those consistently found with successful agencies and not found with unsuccessful agencies, was not there.

5. **What distinguished successful agencies from unsuccessful agencies was not the strategy – but, rather, how the strategy was implemented.** What became apparent in analyzing the results of the study was that most agencies knew what practices to use but differed in how they implemented those practices. The results: different outcomes.

The question that quickly emerged from the Delta Study findings was this: *"What do successful agencies do, in terms of implementing specific practices, that differs from what unsuccessful agencies do in implementing the same practices?"*

What was evident from the results of the Delta Study was that agencies shared an understanding of what practices they needed to use in an effort to reduce hospitalization rates – but did not share an understanding of the specific management implementation strategies and principles that led to improved outcomes. Rather than stop at this insight, we felt it important to go one step further. We took what we learned from the Delta Study, combined it with insights from successful changes efforts, and created what we believe is an optimal model for helping home care agencies reduce avoidable hospitalizations.

Creating the Foundation for a New Home Care Hospitalization Reduction Model

Realizing that we now had definitive information showing that it was not "what" the practices were that led to reduced hospitalization rates, but rather "how" the practices were actually implemented that impacted results, researchers from Fazzi began reviewing our experiences and insights from over 20 years of change and improvement efforts. We also looked at contemporary management theory and practice, including goal setting, leadership, complexity theory, overload theory, and data-driven decision-making and accountability.

The model that emerged incorporates solid leadership, management, and accountability principles with the optimal implementation of key hospitalization reduction practices. The result is a patient-centered model that builds on an agency's existing infrastructure, minimizes any new cost, and can be implemented in a short period of time. The model is called SafeSide to reflect the commitment to ensuring that patient safety is at the top of the list.

The goal of the model is to measurably reduce avoidable hospitalizations. There are three specific practices related to collaboration and support across health sectors that are particularly important. The five-component model that emerged from analyzing successful change efforts is as follows:

1. **Leadership: Senior Leadership Responsible and Accountable for the Success of the Effort.** When a senior leader is involved and accepts responsibility for a major change, there is a much stronger likelihood that that change effort will be a success. SafeSide calls for a C-Level Manager. "C-Level" is defined as a senior manager, e.g. CEO, COO, Clinical Director.

2. **Data Driven Decisions: Measurable Targets and Real-time Tracking of Key Hospitalization Metrics and Trends.** Successful efforts have clear measurable targets and the means to measure progress towards those targets. They also have the ability to track and trend key metrics and drivers of change. SafeSide calls for real-time measures and trending of hospitalization numbers and rates (hospitalization data comes from OASIS filings) and the ability to audit, track, and trend key metrics related to actual hospitalizations. The later audit must be done within 48 hours of each hospitalization. SafeSide also calls for the Quality Improvement or Performance Improvement Manager or an equivalent position to manage data collection and reporting.

3. **Real-time Audits: Tracking and Trending Audits for Every Hospitalized Patient.** Hospitalizations will obviously occur. Some are warranted. Others are not. Using a standardized audit tool, the SafeSide Program calls for audits to be done for every hospitalized patient within 48 hours of the hospitalization. SafeSide calls for the Clinical Director to oversee the effort with the Team Supervisor responsible for conducting the actual audit and submitting copies of the audit report to the Clinical Director and the QI/PI lead for the data management.

4. **Mandatory Planning and Improvement Meetings: Monthly Accountability Planning (MAP) Meetings.** These are not update meetings; they are planning meetings. The goal of the meeting is to review all data and insights generated from the data tracking component and the audit component and make corrective decisions each month based on trends and insights that have been generated. Examples of decisions made might include changing internal operations to intervene earlier in potential hospitalizations, refining existing practices, or initiating new practices. SafeSide calls for the C-level project lead to manage this meeting, which should include both the data collection lead and the auditing lead. Other staff, particularly those who are the leads for specific practices, may also be invited to join.

5. **Targeted Practices: Refinement and Implementation of Hospitalization Reduction Practices.** All agencies use a number of hospitalization reduction practices. The SafeSide Model calls for a two-pronged approach. The first phase entails a systematic review of existing strategies and a refinement of those strategies to ensure that they achieve maximum impact. Once the existing strategies have been reviewed and refined, the SafeSide Model calls for adding one or no-more-than-two new strategies each quarter. The goal is not to have a multitude of strategies! The goal is rather to have a minimum number of right strategies that truly impact hospitalization rates. Minimizing information and strategy overload, while maximizing the impact of appropriate strategies, is key to the success of the effort.

   Of particular interest is the initiation of practices related to system-wide collaborative and cooperative efforts. The development of the collaborations can and should be initiated early in the development of the SafeSide Model. Because of these system relationships, establishment of formal collaborations require the active involvement of either the agency's CEO or other C-level person. It may even require advocacy by agency board members. SafeSide calls for formal agreements to be arranged with key hospitals and physician groups. These collaborations should clearly define the roles and responsibilities of both groups each time a potential hospitalization may occur.

The SafeSide Model represents a major advancement in reducing hospitalizations in home care. It is a model that integrates solid management principles with the insights gained from the Delta National Hospitalization Reduction Study. It is a formal, highly accountable, outcome-oriented model that provides agencies with the structure and tools to reduce hospitalizations. More importantly, it is a model that can be quickly implemented, requires few or no additional resources (beyond redefinition of some roles and the management of data), and defines success in the only manner that matters: reducing avoidable hospitalizations while protecting the health and well-being of home care patients.

Delta Project Overview

The Delta Study to Reduce Hospitalizations was the largest effort in the history of home care to identify best practices for reducing avoidable rehospitalizations. It involved nearly 800 agencies of all sizes, all auspices, rural and urban, for-profit and not-for-profit, hospital-based and freestanding. It also proved to be one of the most collaborative efforts ever initiated in home care.

The study was sponsored by Delta Health Technologies and co-sponsored by the National Association for Home Care & Hospice. Affiliated sponsors included the Joint Commission, CHAP, NAHC Forum of State Associations, American Physical Therapy Association, HHQI National Campaign Contractor, WVMI & Quality Insights, and Fazzi Associates. Fazzi Associates also served as the developer and facilitator of the project.

The study was designed to accomplish four specific goals:

1. To identify best practices intentionally used by home health care's most successful agencies (those who have the lowest hospitalization rates in each state) to reduce unplanned hospitalizations in their agency, and to compare them with those strategies used by the least successful agencies.

2. To determine the percentage of agencies that intentionally used each of the best practices to reduce avoidable hospitalizations.

3. To distribute the findings free to home care agencies throughout the United States and to encourage their adoption and use of the most promising best practices.

4. To use the findings from the study as the foundation for a national effort to reduce cost, improve the quality of services provided, and measurably reduce hospitalization rates in home care agencies throughout the country.

The actual study covered a six month period and involved nine systematic phases:

A. **Recruitment of National Steering Committee:** An essential part of the design of the project was to ensure that it was overseen and guided by experts in the field. In addition to representatives of the sponsoring groups, leaders in some of the industry's most well-known and respected agencies were recruited to the National Steering Committee. *See page **49** for National Steering Committee Members.*

B. **National Web Input Survey:** A unique component of the Delta Study was an effort to open the process and encourage agency leaders, managers, staff, board members, patients, their family members, and anyone else who had an interest in the study to make suggestions regarding questions to ask or issues to address. The hope of the sponsors was to get upwards of 500 specific recommendations. The response was overwhelming. Over 3,600 recommendations were generated during the two-week web survey. These recommendations were analyzed, grouped into major themes, and presented to the National Steering Committee during their survey development effort.

C. **Developing the Survey Instrument:** To ensure that the survey instrument incorporated all of the potential hospitalization reduction practices used by home care agencies and included all of the issues of concern to the field, the Steering Committee members attended an all-day Expert Design Forum held in San Diego on July 12, 2011.

Using a highly interactive process, members of the committee reviewed the recommendations from the national web survey and added questions and issues that they felt needed to be addressed. Each issue was reviewed, refined, and ultimately approved for inclusion in the study. Potential survey questions included specific hospitalization reduction strategies (Front Loading, Disease Management, etc.) and questions related to the use of those strategies. A final set of draft questions was then approved and submitted to researchers who focused on testing the reliability and validity of each question and the instrument as a whole.

D. **Field Testing and Verifying Survey Instrument:** Following the identification of a set of draft questions, researchers went about the process of structuring the questions and putting them in a survey format. The individual questions and survey instrument were field tested with agency leaders in different parts of the country, refined, and field tested again, until all questions resulted in consistent understanding and responses by those being interviewed.

E. **Identification of Agencies to Be Surveyed:** Key to the success of the survey was ensuring that a strong representation of all of the major segments of home care agencies were included in the survey. Eligible agencies needed to have Home Health Compare hospitalization scores for both 2009 and July 2011 (the first time they were reported since 2009). Eligible agencies also needed to be large enough to avoid major fluxes that often occurred in very small agencies, e.g. one or two hospitalizations that dramatically changed their rates. Researchers therefore focused on agencies that had Medicare revenues of $500,000 or more. Finally, strong representations of the following types of agencies were included: hospital-based versus freestanding; urban versus rural; profit versus non-profit; and small, medium, and large. For comparative purposes, the agencies included in the study were those whose hospitalization scores for July 2011 were in the lowest (best) 20% and the highest (worst) 20%.

Note: Initially, we also identified the 20% of agencies that showed the most improvement. We had planned on surveying those agencies that improved the most. In analyzing this group, we quickly discovered that many of them continued to have poor scores, although they did improve somewhat. Agencies within this group were therefore not included in the study unless they happened to be also in the lowest or highest group. From the three groups, over 2,000 agencies were identified, with 792 ultimately being surveyed.

F. **Conducting the National Survey:** The survey was conducted over a two-month period, August to September 2011. The survey method was a phone survey. Average time for the interview was 27 minutes, with some interviews extending to over 40 minutes. Those surveyed included agencies from all regions of the country and from all target groups.

Surveyed Agencies by State	
Alabama	12
Alaska	1
Arizona	8
Arkansas	19
California	49
Colorado	13
Connecticut	13
Delaware	1
Florida	55
Georgia	12
Idaho	6
Illinois	35
Indiana	18
Iowa	8
Kansas	8
Kentucky	20
Louisiana	23
Maine	8
Maryland	7
Massachusetts	17
Michigan	43
Minnesota	7
Mississippi	4
Missouri	24
Montana	3
Nebraska	5
Nevada	3
New Hampshire	5
New Jersey	13
New Mexico	7
New York	23
North Carolina	28
Ohio	34
Oklahoma	18
Oregon	13
Pennsylvania	43
Puerto Rico	3
Rhode Island	1
South Carolina	13
South Dakota	3
Tennessee	27
Texas	69
Utah	7
Vermont	5
Virginia	24
Washington	13
West Virginia	9
Wisconsin	12

G. Analyzing the Findings: Once the survey was completed, researchers and senior managers from Fazzi Associates began an intensive review of the data using an array of segmented analyses using a standard research analysis tool, the Statistical Package for the Social Sciences (SPSS). Particular emphasis was placed on identifying the frequency of use of each of the practices studied and their relationship with Home Health Compare hospitalization scores. A comparative analysis was also done of the lowest hospitalization agencies versus the highest hospitalization agencies.

It was here that we made a major finding – that there was no difference in the frequency of use practices between the most successful and least successful agencies. Some other factor accounted for how to successfully prevent rehospitalization.

With this finding, Fazzi looked more deeply at change efforts that Fazzi was either involved with or aware of, analyzing them separately from frequency of use practices. Our goal was to identify those management or organizational factors and strategies that were consistently associated with successful efforts to reduce hospitalization. In many ways, it was this initial finding, coupled with the insights gained from the analysis of successful efforts, which led to the development of a new model for reducing avoidable hospitalizations. This new model is highly accountable, outcome oriented, and focused, yet requires little or no new resources for agencies. It can easily be implemented within a very short period of time. The model is called SafeSide, and will be summarized in the Executive Summary of the report.

H. Distributing Findings: Once the report and analyses were completed, efforts have been – and will continue to be – initiated to share the findings and to provide recommendations for how agencies can reduce hospitalization rates. Distribution efforts started with two major keynote presentations at the 2011 NAHC Annual Meeting. This was followed by what may have been the largest attended set of webinars in the history of home care – nearly 3,000 agencies signed up to attend the December 2011 webinars. Additionally, state associations have either provided keynotes presentations on the findings from the study or have scheduled a presentation. Finally, through Delta, NAHC, Forum of State Associations, and the other Affiliated Sponsors, this report will be made available to the entire field.

I. Developing the Foundation for a National Campaign to Lower Hospitalization Rates in Home Care: Two explicit goals of this study were: a) to learn from the field what strategies had the greatest potential of helping agencies impact and lower hospitalization rates, and b) to then use the findings to generate a national campaign to lower rates.

What emerged was the realization that while the strategies were important, the real key to lowering rates was found in the structure and management practices associated with implementing hospitalization reduction strategies. The agencies most successful in initiating change efforts were organizations that had these four structural commitments in place:

- A senior leader responsible for the effort

- Clear targets for improvement and the means to measure those targets in real-time

- A structure and accountability system that was respected and adhered to

- A team that was held accountable and was absolutely committed to the success of the hospitalization reduction effort

This led to a new model for reducing hospitalizations called SafeSide. The name SafeSide is being used to reflect the structural commitment to protecting and enhancing the health and welfare of home care patients. The key components of this model are summarized in the Executive Summary.

The Delta Study to Reduce Hospitalizations: A National Study to Reduce Avoidable Hospitalizations through Home Care was more than a study to identify best practices for reducing avoidable hospitalizations in home care. It was a national effort by an industry that is committed to taking responsibility for finding ways to improve agencies' ability to serve patients and create ways to help patients avoid the trauma of being hospitalized. The findings showed that there were specific strategies known to the field and used by the field. What also emerged was how critically important the accountability and management systems are in ensuring that the strategies used to prevent hospitalizations are successfully implemented.

In many ways, the Delta Study is emerging as the genesis and catalyst for the development of a well-thought-out and nationally supported campaign to lower hospitalizations in home care nationwide. The winners will not simply be the agencies that improve their ability to lower hospitalizations or the government that will benefit from a lower cost. The real winners will be patients who will be treated in a more responsive, respectful, and caring fashion, and who will avoid the trauma of unnecessary rehospitalizations.

Overall Observations

There are a few different ways that we looked at the data for the 22 strategies we discuss in this report.

We looked at the results broadly, by comparing the most successful and least successful agencies, and the frequency with which they used each strategy.

- We created five agency breakouts and analyzed the data for each strategy through these different lenses to see if any patterns came into focus. Only data from the 5% of agencies that were most and least successful at reducing hospitalizations were compared. The breakouts were:

    Agency Size (<$500K, $1M-$2.99M, $3M-$9.99M, >$10M)
    Agency Type (Hospital-affiliated, Freestanding)
    Ownership Type (Government, Not for Profit (Private), Proprietary, Other)
    Location (Rural, Urban)
    Economic Success (Profit, Loss)

In the following pages, we describe each of the 22 strategies and these results, grouped into the four strategy categories.

- A. **Patient Care:** Strategies that are directly provided to patients or their families.

- B. **Organizational Structure:** Strategies related to the structuring of the agency; management initiatives that the agency implemented to improve its ability to reduce avoidable hospitalizations.

- C. **Health System-wide Strategies:** Strategies that the agency initiates with other segments of the traditional or non-traditional health system to better support patients and to establish protocols and clarify strategies for reducing the possibilities of hospitalizations.

- D. **Data Driven Strategies:** Strategies that use data as a major source for identifying the causes and trends of hospitalizations for high risk patients who require more intentional interventions.

The report provides a comparative summary of the 5% most successful (lowest hospitalization rates) and the 5% least successful (highest hospitalization rates) unless otherwise noted.

Patient Care

In the category of patient care, home health agencies can work directly and effectively with patients, their families, and other caregivers to reduce common reasons for hospitalization. By educating patients and their caregivers in ways to manage and control simple – but often dangerous – problems like falls and mistakes with medication, this intervention at the most basic level of care can yield great results.

The Delta Report asked questions related to these following strategies – numbered by frequency of use by all surveyed agencies – that are used directly with patients or their families to reduce hospitalizations:

1	Fall Reduction Program
4	Medication Management
9	Patient/Caregiver Education
15	Disease Management
17	Telephonic Practices
21	Telehealth

HIGH AND LOW REHOSPITALIZATION

*The difference between "high" and "low" rehospitalization rates is **inversely** related to success.*

The best outcome is a "low" rehospitalization rate, which can seem counterintuitive. To avoid confusion, we have chosen in this report to use the terminology of "more or less successful agencies" rather than "higher or lower rates."

- *The "most successful" agencies have the **lowest** rehospitalization rates.*

- *The "least successful" agencies have the **highest** rehospitalization rates.*

Fall Reduction Program

Fall reduction is the #1 strategy used by home care agencies to prevent hospitalization. It is a systematic program to reduce the number of falls in home care patients and decrease injuries caused by falls.

This strategy is vitally important because older adults fall frequently – one out of three adults aged 65 and older suffers a fall each year. Falls among older adults are the leading cause of injury and death, and are the most common cause of nonfatal injuries and hospital admission for trauma. Adults over 75 who live in community living have a 50-60% likelihood of falling *every year.* Adults over 65 have a 15% likelihood of fracturing a hip in their lifetime – and 33% of persons who fracture their hip in a fall die within a year. To give nationwide numbers to the extent of the problem, in 2009 22 million nonfatal fall injuries among older adults were treated in emergency departments, and more than 581,000 of those patients were hospitalized. By 2020, the cost of fall injuries is projected to reach $43.5 billion.

Programs to reduce falls are used by almost all agencies, since the problem is so pervasive, and ways to prevent it are widely known and used. The different stages in fall reduction programs are to evaluate each patient for risk of falling, as well as the risk of injury if a fall occurs. Based on the risk of falling, the home care agency implements interventions, including patient education, to prevent falls. The agency monitors and evaluates the effectiveness of the interventions used.

Of Those Agencies That Used Fall Reduction (94.9%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

Agencies

- 94.6% of the most successful agencies provided a Fall Reduction Program.

- 92.3% of the less successful agencies provided a Fall Reduction Program.

Differences

- For the least successful agencies at reducing hospitalization, agencies operating at a loss were less likely to use fall prevention (84.2%) than agencies operating at a profit (94.8%).

Citations and Resources

www.homecaremissouri.org/projects/falls/index.php

www.stopfalls.org/service_providers/resources.shtml

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Bucher, Gale; Moore; Szczerba, Pamela; Curtin, Patricia M. – "Fall Prevention Program for Assessment, Interventions and Referral" *Home Healthcare Nurse* March 2007, 25 (3) 174 -183.

Fortinsky, Richard H.; Baker, Dorothy; Gottschalk, Margaret; King , Mary; Trella, Patricia; Tinetti, Mary E. – "Extent of Implementation of Evidence-Based Fall Prevention

Medication Management

Medication management is a comprehensive approach that assesses and monitors each patient/caregiver's ability and willingness to accurately and safely maintain their prescribed medication regimen.

Medication mistakes are easy to make, especially for elderly individuals who can't see or handle the pills as well, who are on medications that might have side effects such as drowsiness, have many medicines to keep track of, or whose ability to remember details is impaired; some or all of these might be true for someone needing home health care. The result is that 30% of all hospitalizations and fully 45% of all readmissions among the elderly are associated with medication mismanagement. However, there are ways to identify potential problems and address them before harm is done. One study reported that with aggressive medication management used over a period of only nine months, they were able to achieve a 35% reduction in rehospitalizations.

Good medication management involves being aware of what medicines a patient is taking, reviewing them to identify potential cross-medication issues, doing patient assessment and patient education, monitoring adherence to the medication regiment, and intervening when necessary. Important aspects are as follows:

- Medication reconciliation between physician orders, hospital discharge medication list (if available), medication the patient is taking, and medications in the home

- Medication reconciliation, including all prescribed and over-the-counter medications

- Review of medications to identify any clinically significant medication issues (such as drug reactions, ineffective drug therapy, side effects, drug interactions, duplicate therapy, omissions, dosage errors, noncompliance)

- Resolution of any issues with the physician(s)

- Transmission of the medication list to the physician within 24 hours of the admission visit

- Patient education, including medication fact sheets, explanation of what each medication is used for and how often to take it, safe administration technique, and proper disposal of medications, syringes, etc., if appropriate

- Utilization of the "teach back" approach, in which the patient/caregiver demonstrates or communicates understanding of the instruction

- Monitoring of the patient/caregiver's adherence to the medication regimen

- Interventions to encourage adherence to the medication regimen

Of Those Agencies That Used Medication Management (78.8%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 83.7% of the most successful agencies provided a medication management program.

- 76.9% of the least successful agencies provided a medication management program.

- 23.1% of least successful agencies did not have a medication management program.

Differences

- Least successful agencies making between $1M-$2.99M were *less* likely to use this strategy (63.6% vs. 76.9% overall).

- Profitable agencies used this strategy in about the same proportions. Interestingly, non-profitable agencies *reversed* their usages; less successful agencies used it *more* than the unsuccessful group's average (89.5% vs. 76.9% unsuccessful average), but more successful agencies used it *less* than the successful group's average (78.6% vs. 83.7% successful average).

- In the least successful agencies, rural agencies were *more* likely to use this strategy and urban agencies were *less* likely to use this strategy (83.3% vs. 67.7%; 76.7% overall).

Citations and Resources

www.picf.org

Boutwell, A.; Hwu, S. – "Effective Interventions to Reduce Rehospitalization: A Survey of the Published Evidence" Cambridge, MA Institute of Health Improvement, 2009.

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Patient/Caregiver Education

Patient/Caregiver Education is a strategy that does not exist as a standalone, because educating the patient/caregiver is an integral part of many other strategies. However, having a formal, well-implemented plan for *how* to teach the patient/caregiver what they need to know or do is critical to the success of many of the other strategies. Approaches to reduce unplanned hospitalizations such as Disease Management, Care Transitions, and Care Management depend on a heavy component of patient/caregiver education – whether or not the education is done well can make the difference between those strategies ultimately being successful or unsuccessful.

Education interventions can include a variety of modalities and services. Areas of education interventions can range from:

- Encouraging active self-management

- Education regarding symptoms

- Education regarding when to seek further help

Effective techniques for patient/caregiver education can include giving out educational material and explaining what to look for and how to handle everyday activities and situations. One particular technique, the "teach back" or "read back" method, is highly effective in verifying patient/caregiver understanding of what was taught, by requiring that after instruction, the patient/caregiver demonstrate what they were taught, by "teaching it back" to the instructor. By changing the patient/caregiver's role from passive listener to active teacher, they integrate the information more thoroughly and the instructor can ensure that what was taught was understood.

Of Those Agencies That Used Patient/Caregiver Education (70.6%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

In this study, patient/caregiver education was used *more* frequently by the most successful agencies:

- 78.3% of the most successful agencies provided patient/caregiver education.

- 66.7% of the least successful agencies provided patient/caregiver education.

- 33.3% of least successful agencies <u>did not</u> have a patient/caregiver education program.

Differences

- The smallest ($500 K) least successful agencies were *less* likely to use patient education as a strategy (56.5% compared to 66.7% overall least successful).

- The most successful agencies located in urban locations were *more* likely to use this strategy (88.0% compared to 78.3% overall least successful).

Citations and Resources

patienteducation.osumc.edu

www.healthwise.org

Koelling, T.M.; Johnson, M.L.; Cody, R.J.; Aaronson, K.D. – "Discharge Education Improves Clinical Outcomes in Patients with Chronic Heart Failure *Circulation* 2005, 111(2), 179-185.

Gwadry-Sridlar, F.H.; Flintoft, V.; Lee, D.S.; Lee, H., Guyatt, G.H. – "A Systemic Review & Meta-Analysis of Studies Comparing Readmission Rates & Mortality Rates in Patients with Heart Failure *Archives of Internal Medicine* 2004, 164(21), 2315-2320.

Vasquez, Monica S. – "Preventing Rehospitalization Through Effective Home Health Nursing Care" *Home Health Care News* February 2008, 26(2), 75-81.

Disease Management

Disease Management strategy is a system of evidence-based, coordinated healthcare interventions and communications for populations that have special health concerns.

Some patients have serious diseases that need longer-term management. Having the right education or the right monitoring/intervention can make a big difference in preventing hospitalization for a client with diabetes or a client dealing with the kind of drugs necessary to provide good pain management. A systematic review of disease management programs for heart failure found an 8% reduction in rehospitalization and that subsequent all-cause rehospitalizations were reduced by 19%. In another study, a pilot program demonstrated a 23% rehospitalization rate for patients with chronic disease over 12 months, compared to the national rate of 34%. The three pillars of that program were: physician collaboration, patient/family empowerment, and a telehealth home care provider.

Some of the common disease management programs address CHF, COPD, diabetes, hypertension, coronary artery disease, stroke, end-stage renal disease, and pain management. Specific disease management pathways for each of these identified disease processes might include:

- Education (using disease-specific teaching guidelines)

- Self-care guidelines

- Monitoring (and intervention as needed)

Of Those Agencies That Used Disease Management (61.0%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 62.0% of the most successful agencies provided a disease management program.

- 53.8% of the least successful agencies provided a disease management program.

- 46.2% of the least successful agencies <u>did not</u> provide a disease management program.

Differences

- More successful agencies making between $3M-$9.99M were *much more* likely to use this strategy (75.0%), while the less successful agencies of the same size were *less* likely to use this strategy (47.4%).

- Overall, freestanding agencies were *more* likely to use disease management programs than hospital-based agencies.

Citations and Resources

Boutwell, A.; Hwu, S. – "Effective Interventions to Reduce Rehospitalization: A Survey of the Published Evidence" Cambridge, MA Institute for Healthcare Improvement, 2009.

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Kinmelstiel, C.; Levine, D.; Perry, K.; et al – "Randomized Controlled Evaluation of Short-Long Term Benefits of Heart Failure Disease Management with a Diverse Provider Network: The SPAN-CHF Trail" *Circulation* 2004, 110(11), 1450-1455.

Peterson-Sgro, Kathleen – "Reducing Acute Care Hospitalization & Emergent Care Use Through Home Health Disease Management" *Home Health Nurse* November/December 2007, 25(10), 622-627.

Bolch, Ellen B.; Rosengart, Carl L.; Piette, Katherine F. – "An Evolutionary Home Care Model for Chronic Disease Management" *Caring* July 2009, 28-33.

Telephonic Practices

Telephonic Practices are simple: keep in touch via telephone with patients who are at risk of unplanned hospitalizations. Another name for this strategy is telemonitoring.

Although simple, this strategy can be highly effective. One study found that by calling heart failure patients on the telephone to follow up, rehospitalization numbers were reduced from 854 to 200. Another study found that follow-up telephone calls by nurses to patients with heart failure resulted in fewer hospitalizations.

To use telephonic practices, patients at risk for unplanned hospitalization are called regularly (and more often if needed) to follow up on patient/caregiver education, to update the patient's medical condition, and to determine the need for more follow-up.

Of Those Agencies That Used Telephonic Services (51.0%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 50.0% of the most successful agencies had a formal telephonic service.

- 59.0% of the least successful agencies had a formal telephonic service.

Differences

- This strategy is *more* likely to be used by a not-for-profit agency that is *less* successful at reducing hospitalizations (70.0%) than by a not-for-profit agency that is more successful (45.5%).

- It is *more* likely to be used by an agency whose size is between $3M-$9.99M (73.7%) that is *less* successful at reducing hospitalizations than by an agency the same size that is more successful (50.0%).

- It is *more* likely to be used by an agency operating at a loss (63.2%) that is less successful at reducing hospitalizations than by an agency also operating at a loss but that is more successful (45.2%).

Citations and Resources

Boutwell, A; Hwu, S. – "Effective Interventions to Reduce Rehospitalizations: A Survey of the Published Evidence, Cambridge, MA Institute of Healthcare Improvement, 2009.

Jerant, A.F.; Azari, R.; Nesbitt, T.S. – "Reducing the Cost of Frequent Hospital Admissions for Congestive Heart Failure" A Randomized Trail of Home Telecare Intervention *Medical Care* 2001, 39(11), 1234-1245.

Chaudhry, S.I.; Phillips, C.O.; Steward, S.S.; et al – "Telemonitoring of Patients with Chronic Heart Failure: A Systemic Review *Journal of Cardiac Failure* 2007, 13(1), 56-62.

Telehealth

Telehealth is a strategy that uses a device in the patient's home that transmits video images and/or patient data (such as vital signs, weight, heart rhythms, etc.) to the agency. The telehealth data is integrated into the agency's efforts to reduce unplanned hospitalizations.

Telehealth is a strategy that appears to be infrequently used but in this case, the number and percentage is misleading. Unlike most of the other strategies that could be used by all agencies, telehealth could only be used by agencies that had telehealth systems. In other words, while 100% of agencies could answer "yes" to fall prevention or front loading, only those agencies with telehealth could answer "yes." The most recent report (BlackBerry State of the Industry Report: 2009) on adoption of telehealth has the percentage of agencies with budgets of over $500,000 with telehealth as being roughly 22.9%. It would therefore appear that the percentage of agencies now using telehealth is growing and that nearly all agencies that have telehealth systems use it for reducing avoidable hospitalization.

Within this context, telehealth is used significantly more frequently by the most successful agencies than by the least successful agencies. Patients report having a favorable attitude to home telemonitoring. The patients selected for telehealth tend to be identified using specific disease conditions such as CHF, COPD, diabetes, hypertensions, coronary artery disease, etc.

Strategy Of Those Agencies That Provided Telehealth Services (32.5%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 37.0% of the most successful agencies used telehealth.

- 12.8% of the least successful agencies used telehealth.

- 87.2% of the least successful agencies <u>did not</u> use telehealth.

Differences

- Although proprietary agencies used telehealth with the same low frequency, whether more or less successful, the government, private, and other types of agencies most successful at reducing hospitalization were significantly *much more* likely to use telehealth. For example, while only one-tenth of less successful private agencies used telehealth, almost 50% of successful private agencies did.

- Freestanding agency types overall were *more* likely to use telehealth than hospital-based agency types overall.

- Profit/Loss: Although agencies operating at either a profit or a loss used telehealth at the same low frequencies when least successful at preventing hospitalization (12.1% and 15.8%), and although this frequency, in general, rose sharply for the most successful agencies, profitable companies that were most successful at reducing hospitalizations used telehealth *more* than non-profitable agencies that were most successful (41.7% vs. 28.6%).

- Rural/Urban: A similar effect was in play for the rural/urban breakouts. For the least successful agencies, both location types used telehealth at *equally low* frequencies, and for the most successful agencies, both location types used telehealth *much more.* But the rise in use of telehealth for successful rural agencies was markedly higher than the rise for

successful urban agencies, with successful rural agencies going from 9.5% use to 41.3% use, versus successful urban agencies going from 16.1% use to 23.0% use.

Interestingly, there is also an increase in rural agencies' representation in the most successful agencies, going from 57.5% in the least successful agencies to 71.6% in the most successful agencies. Whether that increase is linked in any way to the far-higher use of telehealth in successful rural agencies would be interesting to explore.

Citations and Resources

www.longtermcarelinks.net/eldercare/home_telehealth.htm

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Gorski, L.A.; Johnson, K. – "A Disease Management Program for Heart Failure: Collaboration Between a Home Care Agency & A Care Management Organization *Lippincott's Care Management* 2003, 8(6), 265-273.

Sicotte, Claude; Pare, Guy; Morin, Sandra; Patvin, Jacques; Moreault, Marie-Pierre – "Effects of Home Telemonitoring to Support Improved Care for Chronic Obstructive Pulmonary Disease" *Telemedicine & e Health* March 2011, 17(2), 95-103.

Lobodzinski, S.; Suave, Jadalla; Ahlein A. – "Integrated Heart Failure Telemonitoring System for Homecare" *Cardiology Journal* 2010, 17(2), 200-204.

Antonicelli, Roberto; Testarmata, Paola; Spazzafumo, Liana; Gagliardi, Cristina; Belo, Grzegorz; Valentini, Maria Consuelo; Olivieri, Fabiolo; Parati, Gianfranco – "Impact of Telemonitoring at Home in the Management of Elderly Patients with Congestive Heart Failure" *Journal of Telemedicine & Telecare* 2008, 14, 300-305.

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Konstam, Varda; Gregory, Douglas; Chen, Jie; Weintraub, Andrew; Patel, Ayan; Levine, Daniel; Venesy, David; Perry, Kathleen; Delano, Christine; Konstam, Marvin A. – "Health-Related Quality of Life in a Multicenter Randomized Controlled Comparison of Telephonic Disease Management and Automated Home Monitoring in Patient Recently Hospitalized with Heart Failure: SPAN-CHF II Trail" *Journal of Cardiac Failure* 2011, 17(2), 151-157.

Cafazzo, Joseph; Kastner, Peter; Seto, Emily – "Clinical Effects of Home Telemonitoring in the Context of Diabetes, Asthma, Heart Failure & Hypertension: A Systemic Review" *Journal of Medical Internet Research* Apr-Jun 2010 12(2).

Organizational Structure

In the category of Organizational Structure, agencies work within themselves to find management initiatives that can improve information management, staff education, clear lines of responsibility, and response to a client during a crisis time, with the overall goal being to reduce hospitalizations.

The Delta Report asked questions related to these following strategies – numbered by frequency of use by all surveyed agencies – that are related to agency-level organizational and management strategies to reduce hospitalization:

2	Agency Awareness and Support
3	Front Loading
5	Twenty-four Hour Availability/Response System
6	Staff Education
7	Care Management
8	One Person in Charge Strategy
11	Formal Hospitalization Avoidance Program

HIGH AND LOW REHOSPITALIZATION

*The difference between "high" and "low" rehospitalization rates is **inversely** related to success.*

The best outcome is a "low" rehospitalization rate, which can seem counterintuitive. To avoid confusion, we have chosen in this report to use the terminology of "more or less successful agencies" rather than "higher or lower rates."

- *The "most successful" agencies have the **lowest** rehospitalization rates.*

- *The "least successful" agencies have the **highest** rehospitalization rates.*

Agency Awareness and Support

Agency awareness and support is the second most frequently used strategy to prevent hospitalization, and the single most frequently used organizational structure strategy. It is making sure everyone in the agency knows that preventing hospitalizations is important and knows the ways in which the agency is trying to address the problem. Doing so ensures that the management and staff, agency-wide, are united and supportive about reducing hospitalizations.

Using a systematic approach to ensure that both managers and staff are informed might include:

- Written communication and newsletters

- Using agency meetings to focus on making information about preventing hospitalization and what efforts the agency is making to do so the topic of agency meetings

- Attending conferences where ways to prevent hospitalization are discussed

- Distributing published literature regarding hospitalization

Of Those Agencies Whose Managers and Staff Were Aware of Hospitalization Reduction Efforts (92.5%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 96.7% of the most successful agencies initiated efforts to ensure staff and manager were aware of hospitalization reduction efforts.

- 88.5% of the least successful agencies initiated efforts to ensure staff and manager were aware of hospitalization reduction efforts.

Differences

- Most ownership types used this strategy at high levels regardless of their success at preventing hospitalization. The single ownership type that accounted for the swing in frequency between least and most successful agencies was the "other" type. The least successful "other" agencies used this strategy 66.7% of the time, but the most successful "other" agencies used it 93.8% of the time.

- In the agencies most successful at preventing hospitalization, use of this strategy *rose more* in the two smallest agencies (<$500K and $1M-$2.99M).

- In the most successful agencies at preventing hospitalization, use of this strategy *rose more* in agencies operating at a loss (78.9% least successful to 97.6% most successful).

Citations and Resources

Jencks, Stephen F., Williams, Mark V., Coleman, Eric A. – "Rehospitalizations among Patients in the Medicare Fee-for-Service Program" *The New England Journal of Medicine* April 2, 2009, 360(14), 1418-1428.

Front Loading

Front Loading was the third most frequently used strategy in preventing hospitalization. Put simply, visits to at-risk patients are increased in the crucial two to three week window at the beginning of care. While this practice uses more agency resources upfront, the results are clear that focusing extra time and care on the most at-risk patients earlier is a highly effective strategy for significantly reducing the chances of their being hospitalized or re-hospitalized later.

What studies show is that the critical time period for rehospitalization is the first two to three weeks following hospital discharge. In one study, home care services that used Front Loading were able to decrease their rehospitalization rates for heart failure patients from 39.4% to 15.8%.

Front Loading is a systematic program to ensure that, when clinically appropriate, individualized patient plans of care contain increased visit frequency at the beginning of care. Steps toward successfully implementing a Front Loading strategy might include:

- Education of agency staff about the importance and appropriate use of Front Loading

- Clearly defined agency criteria for identifying which specific patients need Front Loading

- Review of plans of care to ensure that the strategy is being implemented

- Evaluation of the effectiveness of this approach

Of Those Agencies That Used Front Loading (89.0%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 93.5% of the most successful agencies provided front loading services.

- 94.9% of the least successful agencies provided front loading services.

Differences

What is interesting to note is what separates successful Front Loading agencies – those agencies who have the lowest hospitalization scores – from those who were least successful using the same strategy.

Those agencies that were most successful and used disease management also were more likely to have a medication management strategy (94.8% of most successful versus 83.3% of least successful). Successful agencies were also more likely to have a specific 24-hour response service strategy (97.3% vs. 87.7%), used telephonic protocol (100% vs. 87.5%), had formal hospitalization reduction training for staff (93.0% vs. 81.3%) and had a risk assessment strategy that they used during intake (100% vs. 90.5%).

But again, as is evident from the frequency of use findings on Front Loading as well as all of the other strategies, successful and unsuccessful agencies tended to use the same strategies at nearly the same frequencies. What clearly is the differentiator was not "what" they did but "how" they implemented these and other strategies in combination with each other.

Citations and Resources

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Crossen-Sills, J., Toomey, I., Doherty, M. – "Strategies to Reduce Unplanned Hospitalizations for Home Health Patients: A STEP-BY-STEP APPROACH" *Home Healthcare Nurse* 2006, 24(6), 368-376.

Hogue, Elizabeth E. – "Be Careful in Discharging Patients on Friday" *Hospital Case Management* May 2010, 73-74.

Twenty-four Hour Availability/Response System

A 24-Hour Availability/Response System provides a nurse to answer patient questions by phone 24 hours per day, seven days per week, in order to reduce the potential for unplanned hospitalization.

Ranking fifth, this strategy is used frequently by all home care agencies, which could also reflect that having a 24-hour availability system helps not only specifically as a means for reducing hospitalization, but also more generally to provide good agency care. One study reported statistically significantly fewer heart failure related hospitalizations when clients were given a phone number to call a nurse anytime with changes in clinical status.

Nurses are available by telephone all day during regular office hours, and on-call nurses are available on nights and weekends, to respond to patient questions, concerns, and reports of change in condition. The agency may additionally design specific protocols to prevent unplanned hospitalization. This strategy allows the nurses to make immediate referral if necessary, to give follow-up instructions, or to arrange a home care visit if deemed appropriate.

Of Those Agencies That Had a Formal 24-Hour Response System (78.5%) With Specific Strategies Built In To Help Reduce Hospitalizations, Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 79.3% of the most successful agencies had a formal twenty-four hour availability/response system.

- 80.8% of the least successful agencies had a formal twenty-four hour availability/response system.

Differences

- The proprietary agencies most successful at reducing hospitalization used this strategy *slightly less* than the least successful proprietary agencies did (80.6% more successful vs. 90.4% less successful); in contrast, other ownership types of agencies that were more successful used this strategy *more*, with private agencies having the most significant upward shift (75.8% more successful vs. 50% less successful).

Citations and Resources

Kimmelstiel, C., Levine, D., Perry, K., et al – "Randomized, Controlled Evaluation of Short and Long Term Benefits of Heart Failure Disease Management within a Diverse Provider Network: The SPAN-CHF Trail" *Circulation* 2004 110(11), 1450-1455.

Creason, H. – "Congestive Heart Failure Telemanagement Clinic*" Lippincott's Case Management* 2001 6(4), 146-156.

Staff Education

Staff Education is a formal educational program that a home care agency might use to inform their management, clerical, and direct care clinical staff about ways to reduce the potential for patient hospitalization. In this study, it was the sixth most common strategy agencies reported using, with a focus on educating clinical staff.

It is important for all levels of staff to be educated on the approaches that the agency will be utilizing. Doing so ensures consistency of care and unity of purpose throughout the agency at all levels. Effective educational program strategies might use some combination of the following methods:

- Self-development of the educational program, with the participation and input of staff

- Utilization of published approaches to reduce unplanned hospitalizations

- Utilization of evidence-based, demonstrated approaches to reduce hospitalizations

- Purchasing entire educational programs from vendors

Of Those Agencies That Implemented Formal Staff Education Programs (77.2%) Designed to Educate Staff on Better Ways to Reduce Avoidable Hospitalizations, Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 77.2% of the most successful agencies had a formal education program.

- 79.5% of the least successful agencies had a formal education program.

- 20.5% of the least successful agencies did not have a formal education program.

Differences

In looking at breakouts, there were no differences in the use of staff education.

Citations and Resources

www.seniorbridge.com

health.mo.gov/seniors/hcbs/pdf/hospitalizationinhome/track.pdf

Care Management

Care Management is a strategy used by home care agencies to coordinate an interdisciplinary team approach to manage and direct the care of patients. We asked whether home care agencies intentionally built in activities and interventions designed to reduce unplanned hospitalization into their care management plans.

Integrating the goal of reducing hospitalizations into the organized team approach of care management has a number of benefits. Having defined protocols, coordinating assessment and monitoring of patients, and coordinating resources can all help the agency respond preventively and quickly to reduce hospitalizations, including rapid rehospitalizations. For Medicare, 20% of all rehospitalizations are rapid readmissions (readmitted within 30 days after discharge) – it is estimated that preventable readmissions cost Medicare at <mark>least $12 million annually.</mark>

In care management, coordination of care is focused on:

- Assessing patient needs

- Planning and implementing the plan of care, focusing on patient/caregiver education regarding the patient's health condition, medication education, and reconciliation; optimizing home self-care; and teaching contingency plans if problems arise

- Coordinating resources

- Monitoring patient progress

- Evaluating medical status

Of Those Agencies That Built Hospitalization Reduction Strategies Into Their Care Management Model (76.6%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 78.3% of the most successful agencies had specific activities and interventions built into their care management model.

- 70.5% of the least successful agencies had specific activities and interventions built into their care management model.

- 29.5% of the least successful agencies <u>did not</u> have specific activities and interventions built into their care management model.

-

Differences

- In the agencies most successful at preventing hospitalization, use of this strategy *rose more* in the two mid-size agencies ($1M-$2.99M and $3M-$9.99M).

- In the agencies most successful at preventing hospitalization, use of this strategy *rose more* in agencies operating at a profit (72.4% least successful vs. 87.2% most successful).

Citations and Resources

Koekler, Bruce E.; Richter; Kathleen M.; Youngblood, Liz; Cohen, Brian A., Prengler, Irving D.; Cheng, Dunlie; Masica, Andrew L – "Reduction of 30 day Post-discharge Hospital Readmission or Emergency Department (ED) Visit Rates in High Risk Elderly Medical Patients through Delivery of a Targeted Care Bundle" *Journal of Hospital Medicine"* April 2009, 50(4), 211-218.

Golden, Adam G.; Tewary; Sweta; Dang; Stuti; Roos, Bernard A. – "Care Management's Challenges & Opportunities to Reduce the Rapid Rehospitalization of Fail Community-Dwelling Older Adults *The Gerontologist* 2010, 50(4), 451-458.

One Person in Charge Strategy

The One Person in Charge strategy means that an agency identifies one person who has the authority/responsibility to monitor and lead efforts to reduce avoidable hospitalization for the agency's home care patients.

By identifying a single leader, the agency's efforts to avoid hospitalization are centralized and made into a priority. Possible initiatives are more likely to be investigated and completed, rather than shuffled back and forth as good ideas among a group of people who do not have avoiding hospitalization as their main responsibility. When one person is established as the "go-to" person, they become the gatekeeper for information about hospitalization at the agency, becoming the agency's "institutional memory" about what has been done in the past, as well as what has worked and what did not work. Finally, having one person monitoring the flow of data, arranging for educational opportunities, establishing connections with outside agencies, and keeping on top of industry news creates continuity and stability.

The leader's role can vary with the development level of the team, from a novice team to an experienced team. The leader's actual role can also vary from agency to agency, including roles as consultant, director/coach, teacher, or supportive advisor. Common tasks are to monitor and report on agency hospitalization rates and to contribute to evaluations of the effectiveness of the agency's interventions.

Of Those Agencies That Named One Person to Be In Charge of Their Hospitalization Reduction Efforts (73.3%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 80.9% of the most successful agencies.

- 68.1% of the least successful agencies.

- 31.9% of the least successful agencies did not have one person in charge of their efforts.

Differences

- There was definite variation among the ownership types:

    1) Both government and private agencies used this strategy at the same high level regardless of their success at preventing hospitalization.

    2) Proprietary agencies that were less successful at reducing hospitalization used this strategy *less* than proprietary agencies that were more successful (67.3% least successful vs. 80.0% most successful).

- There was also definite variation among agency sizes:

    1) The smallest agencies (<$500K) were most likely to use this strategy, regardless of their success at preventing hospitalization.

One Person in Charge Strategy Use

80.9%

68.1%

Most Successful Agencies   Least Successful Agencies

2) Although agencies making $3M-$9.99M that were unsuccessful at preventing hospitalization were the least likely to use this strategy among the unsuccessful agencies, they used it *much more* in the most successful agency group (57.9% least successful vs. 83.3% most successful).

Citations and Resources

Husting, Pamela – "Leading Work Teams and Improving Performance" *Nursing Management* September 1996, 27(9), 35-38.

Sauer, Stephen J. – "Taking the Reins: The Effect of New Leader Status and Leader Style on Team Performance" *Journal of Applied Psychology* 2011, 96(3), 574-587.

Formal Hospitalization Avoidance Program

A Formal Hospitalization Avoidance Program is an intentional strategy undertaken within the agency to reduce the potential of avoidable hospitalizations.

Although all avoidable hospitalizations are to be reduced if possible, of particular concern is rehospitalization. Besides the distress and burden it places on the patient and their family, it is expensive for the health care system. In general, for all concerned, rehospitalization of patients after initial hospitalization has been identified as a significant quality and financial challenge. To reduce the expense it causes, CMS is taking steps to cut reimbursement for preventable rehospitalizations, creating a financial incentive for agencies and hospitals to be more proactive in avoiding them.

A formal hospitalization avoidance program has the following steps in place:

- Identify those patients who are at high risk for unplanned hospitalization

- Identify interventions that will reduce the incidence of unplanned hospitalizations

- Implement the identified interventions

- Monitor the interventions

- Evaluate whether the interventions resulted in a rate of rehospitalizations that is lower than would be expected

- Modify the protocols, assessments, and interventions as needed

Of Those Agencies That Developed a Formal Program for Reducing Avoidable Hospitalizations (69.4%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 67.4% of the most successful agencies had a formal hospitalization reduction program.

- 63.8% of the least successful agencies had a formal hospitalization reduction program.

Differences

In looking at breakouts, there were no differences in the use of a formal hospitalization avoidance program.

Citations and Resources

"Hospitals Must Reduce Readmissions as CMS Moves to Cut Reimbursement" *Hospital Case Management* September 2010, 18(9), 129-144.

Wong, Frances Kam Yuet, Chow, Susan, Chung, Lorretta, Chang, Katherine, Chan, Tony, Lee, Wae Man, Lee, Rance – "Can Home Visits Help Reduce Hospital Readmissions? Randomized Controlled Trail" *Journal of Advanced Nursing* 2008, 585-595.

Health System-wide Strategies

In the category of Health System-wide Strategies, the home health care agency reaches out to partner with other segments of the traditional or non-traditional health system. By remembering that patients exist in a network of care – from the agency to doctors and hospitals and other non-medical community agencies – agencies can initiate powerful partnerships, united in creating effective protocols and timely information-sharing, creating a broader safety net for its clients. By working together in partnership to reduce hospitalizations, agencies and other segments of the health system can coordinate and clarify specific strategies that could greatly benefit patients at risk of hospitalization.

The Delta Report asked questions related to these following strategies – numbered by frequency of use by all surveyed agencies – that are used by home health care agencies in working with other health-related entities, both traditional and non-traditional:

16	Non-Medical Community Agency Support Services
18	Physician/Home Care Hospitalization Avoidance Protocol
19	Care Transitions Strategy
20	Hospital/Home Care Hospitalization Avoidance Protocol
22	Emergency Room/Home Care Hospitalization Avoidance Protocol

Non-Medical Community Agency Support Services

The Non-Medical Community Agency Support Services strategy brings community, private duty services, and/or other outpatient resources to the patient's home to help reduce unplanned hospitalizations.

Being elderly or sick enough to require home health care is a challenge by itself, but sometimes there are other factors present that make that challenge far more difficult – such as having no family or friends to help, not having a place to live that meets your physical needs, having a mental illness, or not having enough money to improve any of these situations. Individual stressors, such as living arrangement, can have significant effect on unplanned hospitalizations. If these stressors are not addressed, a patient might have their situation deteriorate much more quickly in a way that would require a hospitalization that might not have happened if those exacerbating factors had been handled properly and in good time. Partnering with non-medical community agencies is a way for home care agencies to smooth the way for their patients to receive the supportive services that they need, thus reducing avoidable hospitalizations.

Connecting agency patients with non-medical support services involves: 1) assessing patients for individual factors that could contribute to unplanned hospitalizations (such as living arrangements, caregiver assistance, limited financial resources, access to medications, etc.), then 2) making appropriate referrals to community resources.

Of Those Agencies That Bring In Other Community Based Services (52.8%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 58.7% of the most successful agencies used a strategy to bring community, private duty and other outpatient resources into a patient's home in an effort to reduce avoidable hospitalizations.

- 46.2% of the least successful agencies used a strategy to bring community, private duty and other outpatient resources into a patient's home in an effort to reduce avoidable hospitalizations.

Differences

- In the most successful agencies at preventing hospitalization, use of this strategy *rose more* in the agencies operating at $3M-$9.99M (42.1% least successful, compared with 66.7% most successful).

- Between least and most successful agencies at reducing hospitalization, use of this strategy by rural agencies mostly remained steady, while use of this strategy by urban agencies was *more* (38.7% least successful vs. 60.0% most successful).

Citations and Resources

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Physician/Home Care Hospitalization Avoidance Protocol

Creating a Physician/Home Care Hospitalization Avoidance Protocol is an intentional strategy to work with referring physicians to reduce the potential of them referring their patients directly to the hospital or emergency department. Because physicians are the ones who determine whether patients are hospitalized, it is good for home care agencies and physicians to coordinate more closely than they have traditionally.

Some of the more effective elements in a physician/home care agency protocol for preventing hospitalizations for patients at risk are to:

- Assign one home care nurse to manage all of one physician's patients

- Use a standard way to communicate with physicians

- Develop standing orders with physicians for interventions for patients at risk

- Have a clinical liaison visit the physician's offices

- Encourage the patient to comply with visiting their physician within seven days of discharge from the hospital

- Give the primary care physician access to the home health electronic record for their patient

- Obtain agreement from the physician that they will not direct the patient directly to the ER for non-life-threatening exacerbation of chronic disease, and instead will allow the home health nurse to evaluate the patient in the patient's home

- Give the home health nurse the ability to arrange a physician visit within 24 hours upon request
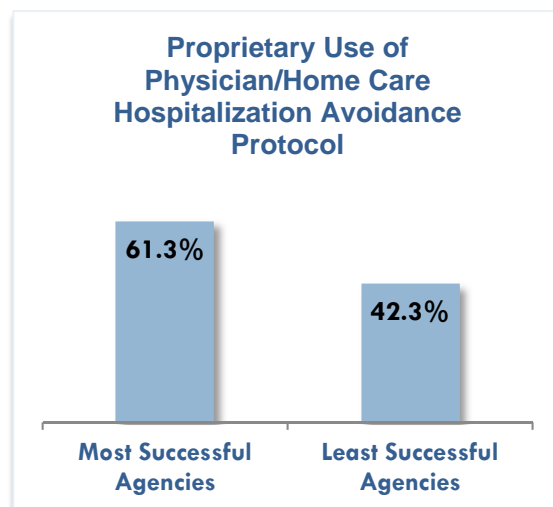
Some home care agencies come up with their own physician/home care protocols; others work jointly with the physicians to come up with physician/home care protocols.

Of Those Agencies That Worked With Physicians to Develop Protocol for Patients on the Verge of Hospitalization (47.7%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 41.3% of the most successful agencies had a formal program with one or more patient physicians.

- 43.6% of the least successful agencies had a formal program with one or more patient physicians.

Differences

- Proprietary agencies used this strategy *more* when *more* successful at reducing hospitalization (42.3% least successful

Proprietary Use of Physician/Home Care Hospitalization Avoidance Protocol

61.3%

42.3%

Most Successful Agencies

Least Successful Agencies

vs. 61.3% most successful); not for profit agencies used this strategy *more* when they were *less* successful at reducing hospitalization (50.0% least successful vs. 27.3% most successful).

- Within the agencies most successful at reducing hospitalization, not for profit agencies used this strategy about *half* as much as proprietary agencies did (27.3% private vs. 61.3% proprietary).

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Care Transitions Strategy

A Care Transitions Strategy assigns a nurse transition coach to facilitate care for a month after hospital discharge for patients 65 years and older who return to the community. This is a formal program with the referring hospital to ensure coordination and continuity of the health care that started at the hospital before discharge, and continues for a month after the patient is admitted to home health care.

Although not used often by agencies in this study, the Care Transitions strategy is proving effective in reducing rehospitalizations. This is more important than ever, given the CMS decision to cut reimbursement for preventable rehospitalizations. A study found a decrease in rehospitalization rates in groups given care transition intervention: at 30 days, the rate was 8.3% for the intervention group vs. 11.9% for the non-intervention group. At 90 days, the decrease in rehospitalization rates was even larger: 16.7% for the intervention group vs. 22.5% for the non-intervention group. Estimated cost savings associated with care transitions interventions after discharge was $296,000 over 12 months for 350 patients.

Comprehensive care transitions incorporate other strategies investigated in this study, such as Patient/Caregiver Education, Medication Management, Disease Management, and connecting with Non-Medical Community Agency Support Services. Formal Care Transitions interventions include the following components:

- Teaching the patients/caregivers to recognize warning signs and symptoms

- Using the "teach back" method to validate their understanding of what was taught

- Doing medication reconciliation and management

- Following up and ensuring that the patient has contact with the primary care physician within seven days of discharge from the hospital

- Being aware of chronic disease pathways and following protocols for disease management

- Facilitating transitions beyond home health care, including community referrals

Of Those Agencies That Participated in a Formal Care Transitions Program With Hospitals nd Other Parts of the Health System, (41.7%), Percentage of Time This Strategy Was Used by Successful vs. Least Successful Agencies

- 45.7% of the most successful agencies participated in a formal Care Transitions Strategy.

- 38.5% of the least successful agencies participated in a formal Care Transitions Strategy.

Differences

- In the most successful agencies at preventing hospitalization, use of this strategy for the most successful agencies *rose more* in agencies making <$500K (26.1% least successful vs. 45.5% most successful) and in agencies making $3M-$9.99M (42.1% least successful vs. 58.3% most successful).

- In the most successful agencies at preventing hospitalization, profitable agencies were *twice as likely* to use this strategy as non-profitable agencies (59.6% vs. 31.0%).

- In the least successful agencies, smaller agencies making <$500K were *much less* likely to use this strategy.

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Hospital/Home Care Hospitalization Avoidance Protocol

Developing a Hospital/Home Care Hospitalization Avoidance Protocol is a strategy that fosters collaboration with referring hospitals to reduce unplanned hospitalization.

It is in no one's best interest to have anyone undergo hospitalization when it can be avoided. Hospitals that take care of patients when they are very sick know a lot about what the patient's medical challenges and needs will be when they are released. Home care agencies that take care of patients when they are sick but are well enough to be living at home know a lot about what the patient's medical status is, as well as the patient's living situation and a host of other important details. By working together, pooling their information, and making joint assessments, hospitals and home care agencies are uniquely in a position to help patients stay well and healthy at home. One example of this type of program is Project Red, an enhanced discharge planning program. Within only 30 days, Project Red reduced the incidence of subsequent hospital utilization (either an emergency department visit or inpatient stay) by 30%.

A good Hospital/Home Care Hospitalization Avoidance Protocol would include:

- Hospital identifying high-risk patients and communicating with the home health agency

- Hospital and home health agency conducting a joint review of readmission records

- Home care having representation on hospital committees to reduce rehospitalization

- Possibly sharing electronic medical record information between hospitals and home health agencies

Of Those Agencies That Developed a Formal Hospitalization Reduction Program With Hospitals (38.9%), Percentage of Time This Strategy Was Used by Successful vs. Least Successful Agencies

- 35.9% of the most successful agencies had a formal program with one or more referring hospitals.

- 33.3% of the least successful agencies had a formal program with one or more referring hospitals.

Differences

- 38.5% of the 33.3% of least successful agencies used a Formal Hospitalization Reduction Program With Hospitals.

- 75.8% of the 35.9% of most successful agencies used a Formal Hospitalization Reduction Program With Hospitals.

In looking at breakouts, there were no significant differences in the use of a Hospital/Home Care Hospitalization Avoidance Protocol Strategy.

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Emergency Room/Home Care Hospitalization Avoidance Protocol

Developing an Emergency Room/Home Care Hospitalization Avoidance Protocol is a strategy that uses formal protocols with local emergency rooms to reduce the potential of unplanned hospitalization.

Emergency rooms are often where patients in medical crisis go, especially after regular business hours. Once a patient visits the emergency room, the result is often hospitalization. Finding the appropriate places in this process to intervene and find another outcome, such as release to home health care, could prevent unnecessary hospitalizations.

A good Emergency Room/Home Care Hospitalization Avoidance Protocol would include:

- Emergency room and home health agency jointly developing a protocol or criteria for how the emergency room can identify patients at risk of unplanned hospitalization

- Home health agency educating the emergency room staff as to what services are available in the home

- Emergency room identifying high-risk patients and notifying the home health agency

- Home health agency staff going to the emergency room to facilitate intake to home care

- Both agencies considering the possibility of sharing electronic medical record information between emergency rooms and home health agencies

Of Those Agencies That Developed a Formal Hospitalization Reduction Program With Emergency Departments (13.5%), Percentage of Time This Strategy Was Used by Successful vs. Least Successful Agencies

- 19.6% of the most successful agencies developed a hospitalization reduction program with one or more local emergency rooms.

- 14.1% of the least successful agencies developed a hospitalization reduction program with one or more local emergency rooms.

However, among the very few agencies that did use this strategy, *more* of the *least* successful agencies at reducing hospitalization served on hospital planning committees.

Differences

- Within the least successful agencies at reducing hospitalization, hospital-based agencies were far *more* likely to use this strategy than freestanding agencies (38.5% hospital vs. 9.2% freestanding). Within the most successful agencies, both types used this strategy at the same low level.

- Profitable agencies used this strategy *more* when *more* successful at reducing hospitalization (10.3% least successful vs. 23.4% most successful); non-profitable agencies used this strategy *more* when they were *less* successful at reducing hospitalization *(*26.3% least successful vs. 16.7% most successful).

Data-Driven Strategies

In the category of **Data-Driven Strategies**, home health agencies can collect, analyze, and use data to reduce hospitalization. Data can be used as a major source to identify the causes and trends of hospitalizations for high-risk patients who require more intentional interventions. Knowing what information to monitor, and how to use that information and manage it effectively, can help an agency to stay ahead of the curve by seeing patterns and taking the correct action at the right times to avoid hospitalizations.

The Delta Report asked questions related to these following strategies – numbered by frequency of use by all surveyed agencies – that are used by home health agencies to use data in ways that help avoid hospitalizations:

10   Risk Assessment and Management
12   Audit Practice Strategy
13   Point of Care Strategy
14   Data Driven Strategy

Risk Assessment and Management

Risk Assessment and Management is a strategy used to assess patients and identify those patients at increased risk for unplanned hospitalization. Doing so allows resources and interventions to be focused on those patients with the greatest need.

The agency uses or develops a tool or screening criteria to identify those patients most at risk of unplanned hospitalization. During intake and initial assessment, all patients are assessed for risk. Those patients who are identified as being at increased risk for unplanned hospitalization receive specific interventions and monitoring that are designed to reduce the risk of unplanned hospitalization.

Of Those Agencies That Developed a Risk Assessment Strategy to Reduce Avoidable Hospitalizations (69.4%), Percentage of Time This Strategy Was Used by Successful vs. Least Successful Agencies

- 73.9% of the most successful agencies utilized a formal risk assessment program.

- 73.1% of the least successful agencies utilized a formal risk assessment program.

Difference

- The smallest agencies (<$500K) with the *most success* at reducing hospitalization used this strategy 95.5% of the time.

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Audit Practice Strategy

Audit Practice Strategy is the formal system used within an agency to audit and trend factors related to unplanned hospitalizations.

Many strategies an agency might use that are related to reducing hospitalization are closely tied to clinical patient care and individual patient outcomes. This strategy takes a step back to look at the data collected within the agency from a more analytical standpoint.

Elements of an audit practice strategy would include the following:

- Identify potential factors related to unplanned hospitalizations.

- Audit all records or a portion of the records of hospitalized patients to screen for those identified factors.

- Audit the records of patients with avoidable hospitalization to track such factors as: referring agency, care manager for the patient, reason for hospitalization, physician, length of time between admission and hospitalization, primary diagnosis at intake, etc.

- Identify those records that need further follow-up and refer them to the appropriate individual who can take action.

- Identify trends and share them with stakeholders (managers, clinical team leaders, agency administration, hospitals, physicians, patient/community advisors, etc.).

Of Those Agencies That Utilized a Formal System to Audit and Trend Unplanned Hospitalizations (69.2%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 62.0% of the most successful agencies audited and trended the causes and factors of unplanned hospitalizations of patients.

- 66.7% of the least successful agencies audited and trended the causes and factors of unplanned hospitalizations of patients.

Differences

- While 76.5% of the smallest agencies (<$500K) who were least successful at reducing hospitalization used this strategy, only 53.5% of them with the most success at reducing hospitalization used this strategy.

- Non-profitable agencies with the least success at reducing hospitalization used this strategy *much less* (36.8% vs. 67.5% of least successful).

Point of Care Strategy

Point of Care is an Information Technology strategy that uses mobile technology to collect data from the home and electronically transmit the data to the agency office. Point of care systems include functionality that can be used to reduce unplanned hospitalization.

Point of care systems make collection of data simple, uniform, and electronically stored. Once patient data has been collected in the patient's home, it is transmitted to the agency office where it is instantly available to clinical staff, managers, quality improvement staff, and others. The point of care system also allows aggregation of data as well as transmission of that data between the home care agency and other healthcare providers, such as hospitals and physicians. Point of care programs often include assessment tools that can be used to identify patients at risk for unplanned hospitalization, by screening for such factors as depression, fall risk, psychosocial issues, health literacy, cognitive abilities, medication interactions, nutrition quality, pressure ulcer risk, or pain level.

Of Those Agencies that Utilized Point of Care Systems (63.5%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 62.0% of the most successful agencies used a Point of Care System.

- 48.7% of the least successful agencies used a Point of Care System.

- 51.3% of the least successful agencies <u>did not</u> use a Point of Care System.

It should be noted that many of these agencies may simply have had a Point of Care System but did not intentionally use it as a hospitalization avoidance effort. The fact is that some vendors' Point of Care Systems may have been helpful in guiding assessments and intervention strategies.

Difference

- Use of this strategy for the most successful agencies *rose more* in agencies making $3M-$9.99M (47.4% least successful vs.79.2% most successful).

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Data Driven Strategy

Data Driven Strategy is the formal system used to monitor and use specific types of data to reduce unplanned hospitalization, in order to compare the agency's data with the national experience.

Many strategies an agency might use that are related to reducing hospitalization are closely tied to clinical patient care and individual patient outcomes. This strategy takes a step back to look at the data from a more analytical standpoint and compare it to data from other agencies. In comparing the agency's data to national benchmarks, the agency can assess progress in reducing hospitalization comparative to other agencies, and can create goals for the agency and staff.

Included in data driven strategies are:

- Identify and track specific indicators that reflect the agency's unplanned hospitalization experience, such as actual numbers of patients with unplanned hospitalizations each month; time between admission to agency and unplanned admissions, or primary and chief secondary diagnoses of unplanned hospitalized patients

- Compare the agency data with the national experience (possibly using a national benchmarking service) to track and trend the agency's monthly hospitalization rates

- Formulate specific performance improvement plans to reduce unplanned hospitalizations, based on the data collected and analyzed

- Evaluate the performance improvement projects for effectiveness in reducing unplanned hospitalizations

Of Those Agencies That Monitored and Utilized Specific Types of Data to Support Hospitalization Reduction Efforts (62.3%), Percentage of Time This Strategy Was Used by Most Successful vs. Least Successful Agencies

- 68.5% of the most successful agencies monitored specific data as a means to reduce hospitalization rates.

- 53.8% of the least successful agencies monitored specific data as a means to reduce hospitalization rates.

- 46.2% of the least successful agencies <u>did not</u> monitor specific data as a means to reduce hospitalization rates.

Survey Methodology

Criteria for Participation: The overall population of home health agencies selected to participate in the study were defined by the following criteria:

1. Any agency that reported Home Health Compare outcome measures 20 through 25 and measures 27 and 28 from the most recent Home Health Compare data released in July, 2011.

2. Any agency meeting criterion 1 that reported annual revenue based on the most recent Medicare Cost Report data released in April of 2011.

3. Any agency meeting criteria 1 and 2 with Home Health Compare hospitalization rates within the lowest 20% of hospitalization rates in their respective state.

4. Any agency meeting criteria 1 and 2 above with Home Health Compare hospitalization rates within the highest 20% of hospitalization rates in their respective state.

5. Any agency meeting criteria 1 and 2 above showing improvement of 3% or more in Home Health Compare hospitalization rates from the 12 month period ending December 2009 to the 12 month period ending March 2011.

The total sample frame of agencies meeting the above criteria was 2,232. Distribution in the three hospitalization rate groups was:

- Lowest 20%: 958

- Highest 20%: 955

- Improved 3% or more: 319

Survey Administration: Research Data Design of Portland Oregon (RDD) attempted telephone contacts to each of the potential respondents in the sample frame. Surveys were administered by telephone and were completed over an eight week period beginning in July 2011. Of the 1,009 agency representatives successfully contacted via telephone, more than seventy-five percent (792) completed the survey. Participation quotas for each of the three hospitalization performance samples were achieved. Of the 1,009 telephone contacts, 440 were made to sample frame agencies who were contacted by their state home care associations to schedule appointments to be contacted by RDD.

None of the respondents were told which hospitalization performance group they represented.

Unless they were also in the low 20% or high 20% of hospitalization rates in their state, the agencies with 3% or more improvement in hospitalization rates from December 2009 to March 2011 responded to only one question of the survey. This single open-ended question requested that respondents identify the factors they believed resulted in the improvement in their hospitalization rates.

Survey Analysis: Survey response data was analyzed using the SPSS statistical software. Cross tabulations of survey results by the three hospitalization performance groups were the primary source of findings, although multiple segmentations of respondents by revenue, geographic area, ownership, legal status, and other characteristics were also analyzed.

Sponsors

Sponsor:

Delta Health Technologies

Co-sponsor:

National Association for Home Care & Hospice

Affiliated sponsors:

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NAHC Forum of State Associations

Community Health Accreditation Program

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National Steering Committee

Region I

Barbara Brooks
VNA Care Network & Hospice, MA

Region II

Vicki Hines
Visiting Nurse Service of Rochester and Monroe County, NY

Region III

Barbara Knot
Bon Secours Home Care, MD

Region IV

Susan Freeman
Alacare Home Health & Hospice, AL

Patty Upham
FirstHealth Home Care, NC

Wanda Coley
Wellcare Home Health Services, NC

Region V

Valerie Landell
Visiting Nurse Association of Cincinnati and Northern Kentucky, OH

Linda R. Huffer
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Elmhurst Memorial Home Care, IL

Ellen Bolch
THA Group, Inc., GA

Beth Anctil
Henry Ford Health System, MI

Region VI

Sharon Andersson
Conway Regional HomeCare, AR

Barbara Goodman
LHC Group, LA

Region VII

Karen Thomas
Oxford HealthCare Home Health and Hospice, MO

Region VIII

Laura Reilly
Visiting Nurse Association of Colorado, CO

Region IX

Donna Baldwin
Banner Homecare, AZ

Mary Lou Carraher
Scripps Home Health Services, CA

Region X

Stacy Olinger
Evergreen Home Health Services, WA

Strategy Frequency of Use

Percent of Agencies Using Strategy	Strategy
94.9%	Fall Reduction Program
92.5%	Agency Awareness and Support
89.0%	Front Loading
78.8%	Medication Management
78.5%	Twenty-four Hour Availability/Response System
77.2%	Staff Education
76.6%	Care Management
73.3%	One Person in Charge
70.6%	Patient/Caregiver Education
69.4%	Risk Assessment and Management
69.4%	Formal Hospitalization Avoidance Program
69.2%	Audit Practice
63.5%	Point of Care*
62.1%	Data Driven
61.0%	Disease Management
52.8%	Non-Medical Community Agency Support Services
51.0%	Telephonic Practices
41.7%	Physician/Home Care Hospitalization Avoidance Protocol
41.7%	Care Transitions
38.9%	Hospital/Home Care Hospitalization Avoidance Protocol
32.5%	Telehealth*
13.5%	Emergency Room/Home Care Hospitalization Avoidance Protocol

* *Lower frequency ratings with Point of Care and Telehealth reflect the fact that only agencies that had these systems could answer "yes." The efficacy of the practice may have been high, but because not all agencies had these systems, the frequency of use was lower.*

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Resources for Best Practices

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