TRANSITIONAL CARE: A NURSE-DRIVEN PROGRAM TO IMPROVE PATIENT OUTCOMES

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TRANSITION OF CARE: A NURSE-DRIVEN PROGRAM TO IMPROVE PATIENT OUTCOMES

Abstract

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Increased scrutiny over the spiraling costs of health care and inefficiencies within the health care system has focused attention on readmissions to acute care that occurs within 30-days of discharge. The Centers for Medicare and Medicaid Services (CMS) have identified these early readmissions as an indicator of poor quality care. With one-fifth of Medicare beneficiaries who will experience early readmissions, it is imperative that a patient centered approach be implemented that will decrease functional dependence and increase quality of life in this vulnerable population (“The Partnership for Patients,” 2012; Toscan, Mairs, Hinton, & Stolee, 2012). Unplanned and often unnecessary readmissions affect 2.6 million seniors per year at a cost of more than $26 billion (Axon & Williams, 2011; Bhalla & Kalkut, 2010; D’Amore, Murry, Powers, & Johnson, 2011; Hasan et al., 2009; Horwitz et al., 2011). Research by Anderson, Helms, Hanson, & DeVilder (1999) found that a breakdown in communication during the transition process was the most common factor in the occurrence of early readmissions and a significant source of poor patient outcomes (Steffens et al., 2009). A reduction in readmissions can be achieved through improved discharge planning, an improved process of communication between providers and through a nurse-driven program designed to transition patients more effectively.
Table of contents

1. Introduction.................................................................p. 5
2. Statement of Problem....................................................p. 6
3. Literature Review..........................................................p. 7
4. Gaps..............................................................................p.10
5. A Nurse Driven Transition Program.................................p.10
6. Using a Logic Model to Discuss Program Development........p.11
7. Program Evaluation and Limitations................................p.15
8. Summary........................................................................p.18
9. References......................................................................p.19
10. Appendices
    a. #1 Sample questions for the nurse-patient discussion........p.27
    b. #2 The Logic Model using a Theory Approach...............p.29
    c. #3 A Logic Model using an Outcomes Approach
       for Developing a Patient Transitional Care Program.......p.31
11. Figure #1 Theory Approach for a Transitional Care Program..p.33
Transitional care: A nurse-driven program to improve patient outcomes

Patients are often beleaguered by feelings of abandonment at the time of discharge from acute care settings. These feelings result from the sudden resumption of self-care with minimal or no support, and can be especially difficult for the elderly, patients with dementia or multiple co-morbidities, and the chronically ill ("AHRQ News and Numbers," 2012). Discharge planning and discharge teaching is often inadequate, or more frequently, misunderstood by patients. In addition, families and care givers are sometimes excluded from the discharge process, further complicating the problem (Coleman et al., 2004; Hernandez & Curtis, 2011).

When patients and care givers have difficulty in finding help to cope with problems encountered after discharge, they often use the emergency department (ED) as a safety net (Kirby, Dennis, Jayasinghe, & Harris, 2010). In many of these instances, the ED becomes the conduit for early readmission. The Centers for Medicare and Medicaid Services (CMS) has identified readmission events as avoidable or preventable and national quality improvement initiatives consider “…hospitalizations of individuals with chronic conditions an avoidable error until proven otherwise (CMS, 2012; Minott, 2008, p. 5).”

The CMS attributes early readmissions to poor quality care delivery in the acute care setting (Halfon et al., 2006). The frequency of early readmissions increase when patients are discharged to an inappropriate setting, are prematurely discharged, when care givers are excluded from the discharge plan, and when patients are inadequately prepared to resume self-care (Minott, 2008; Setter et al., 2009). Establishing an effective process of transitioning patients from one setting to another or from one provider to another will lead to improved outcomes and satisfaction (Ornstein, Smith, Foer, Lopez-Cantor, & Soriano, 2011; Jack, et al., 2009).
In some cases, patients or care givers may display behavioral choices that are counterproductive to the plan of care (often interpreted as non-compliance) which may also lead to early readmissions (Ornstien et al., 2011; Van Walraven, Oake, Jennings, & Forster, 2010). However, non-compliance may simply be the result of misunderstanding the discharge instructions, confusion over medications, or a lack of post discharge support (Coleman et al., 2004; Balla, Malnick, & Schattner, 2008; Kirby et al., 2010). Including family and caregivers in the discharge process and in the plan of care will effectively reduce problems traditionally associated with non-compliance.

A discharge process that is patient centered and includes post discharge support for patients and families/care givers is an essential next step in combating these issues. Several models are being used that effectively expand the discharge process into the home environment. These initiatives include the patient navigator role and the patient centered Medical Home. However, these programs are outside the scope of this paper but merit mentioning as viable options in supporting patients on their journey from illness to wellness.

**Statement of the Problem**

The individual and financial burden associated with an inadequate transition process is staggering, and readmission data are simply one indicator used by federal agencies (like CMS) to examine the issue. In 2008, 18% of Medicare beneficiaries were readmitted within 30 days of discharge costing $15 billion. By 2011, this increased to 20% of beneficiaries, affecting 2.6 million seniors at a cost of more than $26 billion (Axon & Williams, 2011; D’Amore et al., 2011; Friedman & Basu, 2004; Horwitz et al., 2011; Minott, 2008). The individual burden associated with readmissions most often results from inadequate follow up care, medical errors, as a result of adverse events that occur in the acute care setting (i.e., falls, infections), and
medication errors (Healthcare.gov, 2012; Horwitz, et al., 2011; Minott, 2008; Senate Hearing 111-1099, 2010).

Poor transitioning in high risk populations lead to an overuse of inappropriate healthcare services including the ED, and has been shown to contribute to functional decline (increased morbidity) and increased mortality (Coleman et al., 2002; Kirby et al., 2010, Stauffer et al., 2011). Effectively transitioning patients between settings and providers will play a significant role in reducing both the national and the individual healthcare cost burden.

System benefits will also be realized and include the identification of best practice, improvement in the quality of patient care for all patients, and the promotion of patient centered care. The Advanced Practice Nurse is in a prime position to spear head this type of initiative through the use of a nursing model to extend nursing care beyond the inpatient environment, into the patients’ home and community (Anderson, Helms, Hanson, & DeVilder, 1999; Bowles & Baugh, 2007; Hasan et al., 2009; Minott, 2008).

**Literature Review**

Research done by Field et al. (2012), Minott (2008), Van Walraven et al. (2004), Van Walraven, Oake, Jennings, & Forster (2010) and Wong et al. (2010) examined post-discharge follow-up care and patient outcomes. The best patient outcomes occurred if early post-discharge visits were with the same physician who treated them in the hospital. This is not always feasible in many communities who rely on hospitalist services to care for individuals in acute care settings. In these situations, discharge reporting and discharge summaries were found to be an unreliable or inadequate source of information. Provider continuity and improved outcomes go hand in hand.
Improved provider follow up is at the heart of patient centered care. Patients who are encouraged to take an active role in health maintenance experience improved health outcomes. Research by Marineau (2007) and Stein & Reider (2009) found that patients who have a sense of control when recovering from illness report better health outcomes. This sense of control can be enhanced when patients and family/care givers are given the opportunity to participate in the decision making process. This process should include discussions about the need for post discharge services such as home health.

Setter et al. (2009) found that home health care can be used to ensure effective transitions by increasing support during this critical juncture. Chen & Berkowitz (2012) reported that some form of senior support services, such as senior citizen centers, meal delivery, and companion services, made the return to community smoother and helped these vulnerable elders remain independent in their homes/communities longer than seniors who did not have such support services.

The study by Coleman et al., (2004) found that by using a nurse practitioner in the supportive role for transitioning patients reduced the need for other home health interventions. This nursing role filled an important gap in providing patient centered care and care coordination. A previous study by Coleman and colleagues found that study participants who participated in an intensive transition process were half as likely to experience readmissions (Coleman et al., 2002).

Other researchers found similar improvements in outcomes when patients receive adequate support through the course of illness and recovery. For instance, Barg et al., (2012) reported improved outcomes through the use of peer coaches in African American populations.
and Wells et al., (2008) reported improved outcomes when the patient navigator role was used in the long term care of cancer patients.

Another significant problem encountered during the transition process is the frequency of medication errors. Forster, Murff, Peterson, Gandi, & Bates (2003) reported that 66% of post discharge adverse events were related to medication errors. Adverse drug events are responsible for 7% of all acute care admissions and it is estimated that up to 58% of these reactions are preventable and result from incomplete information, errors in prescribing, or a misunderstanding and misuse of medications (Setter et al., 2009; Tamblyn et al., 2012). Medication reconciliation that occurs in the post discharge period, and includes the family/caregiver when possible, can all but eliminate this issue and significantly increase the safety of the most vulnerable during the transition to self-care.

Transitioning patients by reducing or eliminating these issues is essential to improve patient outcomes and quality of life. A transition program that makes health care “…more accessible, patient centered, comprehensive, continuous, coordinated, compassionate, culturally sensitive…” (McAllister, Presler, & Cooley, 2007, p. 729) can be looked at through the lens of the Medical Home Model (Piraino, Heckman, Glenny, & Stolee, 2012).

The Medical Home uses several methods to improve patient outcomes and one is through post care telephonic contact. In research by Courtney et al. (2009), D’Amore et al. (2011), Marineau (2007), Riegel et al. (2002), and Toscan, Maris, Hinton, & Stolee (2012), various populations were examined using telephonic contacts as a source of ensuring post discharge continuity and care coordination, including removing barriers to appropriate follow up. These contacts reportedly reduced healthcare associated costs and increased patient satisfaction.
The populations studied included ED patients, outpatients, and patients discharged from acute care. In each case, telephonic follow up reduced readmissions and improved patient reported quality of life. These calls were the vehicle used to encourage patients to make and keep appointments, discuss patient issues and problems, carry out medication reconciliation, and provide patients with a specific contact person if any questions arose during the transition process.

**Gaps**

In many of the studies and analyses reviewed, risk stratification for the most ill (frail elderly, terminally ill, those with multiple co-morbidities) is not clearly identified and therefore the data may not be generalizable (Piraino et al., 2012). Studies that include those patients at highest risk of readmission, the chronically ill, need to be done to address these remaining questions.

Case management is often used to promote continuity of care and thus reduce readmissions to acute care. However, there are very few trials to test this hypothesis. The addition of telephonic interventions to case management as the usual treatment could be used to evaluate the effect of case management alone (Reigel et al., 2002). Some researchers, such as Jencks, Williams, & Coleman (2009), believed that there is little or even negative evidence that case management is effective in helping patients and family/caregivers achieve the skills they need to fully resume self-care.

**A Nurse-Driven Transition Program**

The focus of the proposed nurse-driven program to improve patient transitions will focus on post discharge instructions and care needs, medication reconciliation, facilitating follow up care or helping to establish primary care, help make appointments, and include families and/or
caregivers in the planning and teaching process whenever and however possible (Coleman et al, 2004; Stein, & Rieder, 2009). Listening to patients and families/caregivers, who know what they need, will empower these patients and caregivers to take an active role in meeting their health care needs (Friedman et al., 2009). An effective transitioning program will provide these individuals with the tools they need to effectively care for them at home, to effectively communicate with health care providers, and to understand their medication regimen (Coleman et al., 2004; Naylor et al., 2009).

Translating research into practice and establishing an evidence based transitional care model is at the heart of program development. Multiple studies have shown that an APN managed, nurse driven approach to transitional care programs is cost effective and provides high-quality care in the patients’ own environment (Marineau, 2007; "AHRQ Health Care Innovations exchange," 2011).

The long term goals of the program will be achieved through a measurable reduction in readmissions, a reduction in the costs associated with inappropriate use or overuse of healthcare resources, improved patient outcomes and quality of life, and improved patient satisfaction.

**Using a Logic Model to Discuss Program Development**

Developing a transition program that effectively addresses stakeholder concerns must include the continuous flow of useful information and have a built in process for evaluation. Information available from The Kellogg Foundation was used as a guide in the development of a Logic Model for a Transitional Care Program. The Foundation describes a logic model as “…a picture of how your program works – the theory and assumptions underlying the program.” The model is further described as “…a road map of your program, highlighting how it is expected to
work, what activities need to come before others, and how desired outcomes are achieved (W.K. Kellogg Foundation, 2004, p. 1).”

Figure 1 is a diagram of the Logic Model as suggested by the Kellogg Foundation. When using a Logic Model as a framework for program development, the journey as well as the destination is visible from the beginning and can help ensure the program’s success in a real world context. The model clearly and sequentially defines the work that is planned, who should do that work and the intended results.

A Logic Model using a Theory Approach is supported by the theory of change. This approach lends itself to a detailed description of the program which is useful in the planning and design stages of development. Theory approach is effective in describing solutions, the reasons behind the selection of the specific solutions, and the activities that will support the solutions (W.K. Kellogg Foundation, 2004).

Theory approach would be used in this case as a tool to explain the reasons for a transition program and what issues will be specifically addressed on implementation. Appendix 2 shows a Logic Model using the Theory Approach in an easy to read format with suggestions for what to include in each step of the model.

Appendix 3 depicts a completed Logic Model using an Outcomes Approach. This model fully describes and frames the Transitional Care Program development, processes, outcomes and outputs in an easy to read format. An Outcomes Approach places the focus on the early aspects of program development. It outlines the resources and activities that are needed to ensure successful implementation of the program.

The components of a Logic Model from an Outcomes Approach include:
1) Resources that need to be utilized for program functioning and include human, financial, organizational, and community sources

2) Activities or what the program will do with the resources

3) Outputs that are directly associated with the program activities

4) Outcomes are the anticipated changes that will come about through participation in the program and include behavior, knowledge, skills, and functional capacity

5) Impacts of the program include both the intended and unintended changes that will occur in the organization, community, and system as a result of the program (long term outcomes).

The most significant goal of a transitional care program is to enable and empower patients and family/caregivers to find and use appropriate healthcare resources and gain the knowledge and skills that will ensure the resumption safe and effective self-care. Once patients have the tools they need to be successfully transitioned from acute care, they will experience improved outcomes and a better quality of life.

The Logic Model design begins with resource identification. In choosing an appropriate person to spear head the development and implementation of a transitional care program, an Advanced Practice Nurse (APN) would be the most logical choice. An APN with the skills to drive the development of a program that meets or exceeds stakeholder goals is essential to overall success. Stakeholder identification and buy in will be the first step in program design. The APN will build relationships among these groups (patients, community, administration, management, physicians, staff, etc.) and solicit input and advice to establish effective program activities and goals.
The development of community partnerships will enhance the community service base for patients who will require referral. This nurse will also be an integral partner in hiring and training staff members in patient evaluation and in identifying appropriate patient centered interventions. These activities are designed to provide a high level of effectiveness that is needed to ensure patient transition.

The proposed program will be staffed by registered nurses (RN’s) trained in patient assessment, planning, and evaluation to determine the patients’ effective transition to self-care. A staff member will make an initial visit to each patient while in acute care. This visit will be used to educate them about the program and establish a trusting relationship that can move into the post discharge period to enhance the ability of the RN to meet the needs of the patient.

Every attempt to include the family/caregiver in the transition process will be made both during the acute care visit and during the follow up telephonic contact. In many cases, the addition of written material (a brochure or other format) that explains the program in detail can be used to reinforce the education and make further strides to include the family/caregiver in the process. Consenting process will also take place during this initial visit. Consent by the patient to include family/caregiver in the transitioning process is essential to meet the requirements of the law. If necessary a date and time for the follow up call will be arranged during this visit.

The primary method of addressing the post discharge needs of the patient is through telephonic contact carried out within 72 hours of leaving the acute care setting. The goal of this contact is to address questions or problems that may have arisen since leaving acute. Issues will be addressed and understanding of discharge instructions assessed. The patient will also be queried about caregiver and transportation needs. If a deficit is assessed, an appropriate referral process will be instituted.
The patient will also be asked about primary care, plan for follow up visits, and if they have the help they need to keep this appointment. If needed, the RN will assist the patient or family/caregiver in establishing a primary care provider in their community and assist in making these appointments and keeping them. The See Appendix #1 for an example of questions that may help in working through post discharge care issues that affect post discharge outcomes.

The patients will achieve a successful transition when they are able to discuss post discharge care instructions, if they or a caregiver can adequately carry through with the instructions (have the skills needed), and discuss their medications including new medications, reasons for taking them, and the schedule they will be taken on (medication reconciliation process). Issues in accessing care in their respective communities will also be discussed and worked through. Patients who attend follow up care are less likely to use the ED as a safety net for care and less likely to experience early readmissions (Van Walraven et al., 2010).

The long term impacts of an effective transition program that meets the needs of the discharged patient will result in improved health and quality of life as reported by patients. Over time, the community, at large will experience an improvement in health and will effectively use more cost effective and appropriate healthcare resources. As health behaviors improve, local health care providers and healthcare facilities will also experience improvements. Fiscal viability will be ensured through a reduction in unreimbursed costs (such as those with pay-for-performance systems) and will stabilize fiscal health through tough economic times (Hoff & Soerensen, 2010).

**Program Evaluation and Limitations**

Evaluation of the program will be an ongoing process and is designed to address the questions: 1) What did the program accomplish; 2) What is the result of working with the
community; and 3) What was learned through administering the program. A process of data collection will be used that will compare readmission data, including reasons for readmission, with those patients who participated in the program and those who did not. Whenever possible, patients who are readmitted within 30 days and/or their family/care giver, will be queried about the impact of the telephonic contact, their perceptions of the effectiveness of the contact, and determine the patients’ perception of their ability to effectively care for themselves after discharge.

Physician partners will also be queried about their perceptions of how patients fared and if there were any direct benefit to the patients and family/care givers who participated. If the provider reported benefits of the program they will be asked to describe those benefits. Negative comments will also be solicited in an effort to improve the transitioning process. These short surveys will be mailed to the physicians and will be resent via email within 2 weeks of the initial contact if the original mailed survey was not returned.

All data collected through these surveys with be evaluated weekly, and any identified deficiencies will be corrected and immediate changes to the program instituted. This continuous process will provide a timely and adequate response for further program refinement. Patients who do not experience a readmission event within 30 days of discharge will be assumed to have achieved a successful transition.

The long term outcomes of improved community health and improved fiscal viability will be more difficult to quantitate and report as a direct result of this program. Separating any co-occurring programs or events that have similar outcomes will not be possible.

There are some limitations to the program as outlined. The most significant identified limitation is lack of sufficient follow up for patients who do not have access to a telephone. In
such cases, the only opportunity for contact will be in the acute care setting. This is recognized
as an insufficient format for carrying out a program of transition, and these patients will rely
heavily on the pre-discharge visit and printed material as supplied by the program staff.

Patients do not always seek inpatient care from the same acute care facility. Data
collection will be severely hampered in this subpopulation of patients and they may be lost to
follow up. Readmissions events that occur in alternate facilities will reduce the ability of the
program to effectively address or correct deficiencies in the provision of the service.

The advent of the EMR and community wide efforts at creating and maintaining accurate
patient records will aid in capturing this ‘lost’ data. With improved access to the EMR, data that
has historically been unavailable will be more easily retrieved. In such cases, it would not matter
where the readmission event occurred, the patient sensitive data can be accessed and used in the
program evaluation process.

Another possible issue would come from a lack of buy in to the program by the larger
community including providers, community service organizations, and home healthcare
organizations. This lack of support would adversely affect the patients during transition. The
APN who can intervene and resolve problems as they arise will prevent further adverse outcomes
for the patient.

Contacting every discharged patient may be an unattainable goal in the beginning of the
program. To improve successful implementation, the program size may need to be limited to a
unit or a service line as an initial pilot. As success on a smaller scale is established, other units
or service lines can be added until the program is in full effect. Continuous improvement in the
program can be built in when implementation is gradual process. Once the program has been
established as a valuable service, the end goal of 100% of discharged patients contacted 100% of the time can be a manageable and desirable goal.

Summary

A transitional care program that is based in an acute care organization, headed by a APN, and staffed by RN’s who are competent in patient assessment, evaluation, and referral processes, will make great strides in improving patient outcomes. When patients are discharged from acute care, they are often unable to effectively resume self-care. The reasons for this failure include inadequate discharge teaching, lack of skill to carry out complex tasks or medication regimens, failure to make and keep follow up appointments with primary care, or the patients simply don’t know who to contact when problems or questions arise.

The result of poor transitioning from acute care are early readmissions, poor quality of life as reported by patients, increased complications, dissatisfaction with health care, inappropriate use of healthcare resources, and an escalating fiscal burden. These poor outcomes can be overcome through a transitional care program that is designed to address each of these issues and help the patients navigate their way from illness to wellness.
References


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Appendix #1

Sample questions and scripting suggestions
(Keeping opening ended questions as much as possible; maintaining patient centeredness; included family or care givers in all conversations and in all interventions)

1. Is there someone that can or who is helping them at home? Who is it? Relationship? How often can they help? How do they help?
   a. If needed, ask the patient for permission to include the care giver in the conversation so that their understanding can also be assessed.
   b. Verbal consent needed prior to proceeding

2. What are your medications?
   a. Reinforce any medications that may be new since discharge or any usual medications that may have been dc’s while in the hospital.

3. How and on what schedule do you take your medications?
   a. With meals, after meals, on an empty stomach, etc.
   b. Route of administration
   c. Help the patient understand why a schedule is best (don’t forget, need constant blood levels, etc.)

4. Do you have any new medications?
   a. Assist patient in obtaining medications that they may not have been able to get yet
   b. If the patient is unable to afford the new medications or if they are not locally available for them, clarify with the primary care provider or if needed, with the discharge physician.

5. Do you have any questions about your medications?
   a. Review the med list provided by the patient, check to see that they were ordered to be continued, assess any possible medication interactions

6. Do you have a primary care provider?
   a. Do they need help in accessing a local provider?
   b. Is their usual provider an ED or urgent care?

7. Have you scheduled a follow up appointment and with whom is the appointment scheduled?
   a. Is it with the admitting physician (surgeon or other specialist)?
   b. Do they have an appointment with their primary care physician to resume post discharge care?
   c. Do they need help making the appointment – conference call between self, office, and patient

8. How will you get to the appointment?
a. Do they have transportation to make the appointments? If not is there a possibility that the appointment can be made locally (satellite offices)
b. Can transportation be arranged for the patient
c. Can the care giver provide transportation

9. Tell me about your discharge instructions?
   a. Reducate about possible complications and what to do if they occur
   b. Answer questions
   c. If they need additional help with tasks such as dressing changes or wound care, identify a family care giver who can help or help them make an appointment for further teaching or evaluation for home care visits.

10. How else can I be of help?
    a. Listen to the patient

11. Do you have any other questions or concerns?
Appendix 2
The Logic Model – Theory Approach to a Transitional Care Program

<table>
<thead>
<tr>
<th>Resources/inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources that are needed to operate the program: funding, organizational resources, collaborating community partners, staff and volunteers, time, facilities, equipment, supplies</td>
<td>If we have access to these resources, then we can accomplish these activities</td>
<td>If these activities are accomplished we will be able to deliver this type of care/service that is intended</td>
<td>If we accomplish the planned service/care delivery our participants will benefit in these ways</td>
<td>If these benefits are realized the community, organization, system can expect to see these changes</td>
</tr>
<tr>
<td>Barriers: attitudes, lack of resources, policies, laws, regulations, geography, technology</td>
<td>Processes, techniques, tools, events, technology. Products: promotional materials, education of staff and patients. Infrastructure: Structure, relationships, capacity</td>
<td>Direct results of the program: size or scope of the program. Is the program delivered to the intended audience at the intended dose? Number of patients included – measureable outcomes (readmissions, ED visits, etc.)</td>
<td>Specific changes in attitudes, behaviors, knowledge, skills, status, or level of functioning expected as a result of the program</td>
<td>Changes expected to result from the program – condition, increased capacity, changed policy</td>
</tr>
<tr>
<td>Patients Providers Payers Staff – RN’s Organization administration and management Community partners</td>
<td>Active participation in planning and evaluating program Include stakeholders in the decision making process</td>
<td>Effective use of healthcare resources Process to gather health data, inform future policy, and improve healthcare advocacy</td>
<td>Community wide access to appropriate health care Reduction in inappropriate use of the emergency department for follow up care/problems/questions</td>
<td>Improved health status of the individual and the community Increased health system efficiency and improved access to care Improved organizational</td>
</tr>
</tbody>
</table>
Improved integration of health care resources within the community

Accurate community health assessments

Improved access to health information

Assumptions:
1. Health is a community issue and must be involved in the resolution.
2. Communities influence and shape public policy
3. External agents and communities can serve as a catalyst for change
4. Shifting revenues/incentives to providers and prevention will improve health
5. Accurate information is needed for informed decision making

fiscal viability with improved reimbursements from pay-for-performance systems

W.K. Kellogg Foundation (2012)
### Appendix 3
A Logic Model using an Outcomes Approach for Developing a Patient Transitional Care Program

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS Activities</th>
<th>OUTPUTS Participation</th>
<th>OUTCOMES Short term 1-3 years</th>
<th>OUTCOMES Medium term 4-6 years</th>
<th>OUTCOMES Long term 7-10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human/financial</td>
<td>1-Meet with patients and family/care givers prior to discharge to establish a relationship and inform them of the intent and purpose of the post discharge contact</td>
<td>1-Connect patients with services as identified during the post discharge contact (pharmacy, transportation services, meals, etc.)</td>
<td>1-Reduce or eliminate preventable medication errors post discharge through a medication reconciliation process that includes patients and families/caregivers</td>
<td>1-Reduce or eliminate preventable readmissions to acute care</td>
<td>1-Improved financial viability</td>
</tr>
<tr>
<td>1-RN staff to meet with patients prior to discharge and conduct post discharge contacts</td>
<td>2-Obtain a copy of discharge instructions and physician discharge summary (EMR) that includes Medications prior to post discharge contact</td>
<td>2-Contact primary care provider if services are needed that need a physician order to access (home health, VNA, etc.)</td>
<td>2- Establish primary care services for those who need help to effectively reduce the use of the ED as a safety net for primary care issues</td>
<td>2-Reduce ED use for post discharge problems</td>
<td>2-Improved individual and community health status</td>
</tr>
<tr>
<td>2-Establish APN oversight to train staff and manage program</td>
<td>3-Contact patients by telephone within 3 days post discharge to reinforce discharge instructions and answer questions (see Appendix 1 for suggested format of)</td>
<td>3-Encourage making and keeping post discharge follow up appointments to improve post discharge continuity of care</td>
<td>3-Improve ability to manage care at home</td>
<td>4-Tap into outpatient services as needed/indicated to improve transition success</td>
<td></td>
</tr>
<tr>
<td>3-Involve stakeholders (administration, physician partners, patients, nursing, social work/case management) in program development and evaluation to ensure all needs are being met</td>
<td>4-Establish post discharge contact for patients to provide a supportive environment – a number to call</td>
<td>4-Establish post discharge contact for patients to provide a supportive environment – a number to call</td>
<td>4-Establish post discharge contact for patients to provide a supportive environment – a number to call</td>
<td>5-reduce or eliminate transportation issues that reduce access to care</td>
<td></td>
</tr>
<tr>
<td>4-Establish working budget that includes salaries, supplies, work space, computers, telephones, call recording system, etc.</td>
<td>5-Ensure access to EMR for program employees and establish if the follow up will be a scheduled appointment</td>
<td>5-Ensure access to EMR for program employees and establish if the follow up will be a scheduled appointment</td>
<td>5-Ensure access to EMR for program employees and establish if the follow up will be a scheduled appointment</td>
<td>6-Improve patient satisfaction with the care provided by the facility</td>
<td></td>
</tr>
<tr>
<td>5-Ensure access to EMR for program employees and establish if the follow up will be a scheduled appointment</td>
<td>6-Improve patient satisfaction with the care provided by the facility</td>
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<td>7-Improve patient satisfaction with the care provided by the facility</td>
<td></td>
</tr>
</tbody>
</table>

1. Meet with patients and family/care givers prior to discharge to establish a relationship and inform them of the intent and purpose of the post discharge contact
2. Establish APN oversight to train staff and manage program
3. Involve stakeholders (administration, physician partners, patients, nursing, social work/case management) in program development and evaluation to ensure all needs are being met
4. Establish working budget that includes salaries, supplies, work space, computers, telephones, call recording system, etc.
5. Ensure access to EMR for program employees and establish if the follow up will be a scheduled appointment

**OUTCOMES**
- Short term 1-3 years
- Medium term 4-6 years
- Long term 7-10 years

**INPUTS**
- Human/financial

**OUTPUTS**
- Activities
- Participation

**OUTCOMES**
- Reduce or eliminate preventable medication errors post discharge through a medication reconciliation process that includes patients and families/caregivers
- Reduce or eliminate preventable readmissions to acute care
- Reduce ED use for post discharge problems
- Improve ability to manage care at home
- Tap into outpatient services as needed/indicated to improve transition success
- Improve patient satisfaction with the care provided by the facility
- Improve patient satisfaction with the care provided by the facility
- Reduce or eliminate transportation issues that reduce access to care
- Improve patient satisfaction with the care provided by the facility
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<table>
<thead>
<tr>
<th>Part of the permanent record</th>
<th>Questions and information to cover during call</th>
<th>When questions or concerns arise may further reduce ED overuse and provide a stop gap for patients who may need prolonged access to the program to ensure transition success</th>
<th>Provider satisfaction with the facility by improving provider continuity and patient teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-Establish working relationships with outpatient service organizations (transportation, pharmacy, home health, etc.)</td>
<td>4-Provide any assistance that is needed by the patient and family/caregiver within the bounds of ability</td>
<td>5-Establish support services for patients in need through community partners – such as home health, physical therapy, companion services, transportation, etc.</td>
<td>W.K. Kellogg Foundation (2012)</td>
</tr>
</tbody>
</table>
**Figure 1**

The Logic Model

**Intended Results**: should contribute to the results you expect (reduced unnecessary readmissions, improved satisfaction, etc.) based on this theory of change.

**Beginnings**: If the assumptions presented (improving the transition process improves outcomes) about the factors that influence the issues (medication errors, lack of follow up, misunderstanding discharge instructions, etc.) hold true....

**Planned work**: then, the planned activities (post discharge telephonic contact) continue to build on the assumptions (teaching, reinforcing and encouraging follow up, medication reconciliation, etc.)

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The Kellogg Foundation: The W.K. Kellogg Foundation Logic Model Development Guide. p. 9