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Care Transitions: Assessing Delivery Gaps in Services System in Erie County

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Care Transitions: Assessing Delivery Gaps in Services System in Erie County

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Abstract

The Affordable Care Act of 2010 introduced many changes to the United States healthcare system, such as payment reimbursement, care coordination and the delivery of services within Medicare and Medicaid. One area of concern is the rates of 30-day, avoidable, hospital readmissions. Care Transitions programs have proven to reduce hospital readmissions, but the availability of these programs in Erie County is unknown. An inventory of all Care Transition programs currently used in Erie County was performed in order to assess the services systems, identify gaps in service, and determine how to address them. In order to complete the inventory a mailed/emailed survey was implemented with follow-up phone interviews to non-respondents.

The purpose of the research was to canvass area hospitals on what Care Transitions models are currently in use and their effectiveness in the discharge and care transition process. A mailed survey was sent to 11 area hospitals. The research found that while Care Transition models are in use at all the respondent institutions, problems still exist during the discharge and 30 day post discharge period. Most notable is the disconnect between area hospitals and community based services that could provide additional post discharge care.

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Chapter I: Introduction

a) Introduction

The growing population of elderly in the near future will create many unique problems to our already burdened healthcare system. One such problem the healthcare system is faced with today is 30-day avoidable hospital readmissions. These readmissions contribute to an ever growing financial drain upon our healthcare system and with the increasing elderly population this may have a devastating effect on the Medicare benefits that many of the elderly rely upon. In an effort to curb this impending dilemma, this issue has been addressed in the Affordable Care Act of 2010, whereby various collaborations are being set up to investigate how to mitigate the problems that contribute to avoidable hospital readmissions.

b) Statement of Problem and Purpose of Study

Care Transitions programs have proven to help reduce hospital readmissions, but the availability of these services is unknown. In an effort to ensure the maximum benefits of these services in Erie County, there needs to be an assessment of the services systems in order to identify existing gaps and determine how to address them. This research will focus on identifying what the delivery gaps are in the services systems between the hospital to home transition.

Many evidence based models for Care Transitions are currently in use today, or are in initial stages of study that work to reduce problems associated with hospital readmissions. The models focus on issues such as, properly translating pertinent patient information between healthcare providers, better discharge planning, and follow-up once the patient is home.

The purpose of the discharge is to safely transition an individual home, but many times this is not the case and within a short amount of time many of these individuals are readmitted. According to Segal (2011) a readmission “is considered avoidable and preventable when appropriate measures are in place to assure the patient is not readmitted to a hospital within 30 days of hospital discharge for the same or similar diagnosis.” (as cited in Kelly & Starr, 2013, p. 7).

In many hospitals the discharge planning does not begin until shortly before the discharge of the patient. Aside from the acute event/condition that necessitated the hospital stay many elderly have additional chronic health conditions that add to the services that are being provided during the hospital stay. Additional conditions are treated by several different healthcare professionals which can result in a fragmentation of information, thus possibly causing misinformation and poorly-executed care transitions.

c) Significance of Study

Because of the changes to the U.S. healthcare system brought about by the Affordable Care Act of 2010, it is important to study what changes have been implemented to the hospital discharge process and care transitions in order to reduce 30-day avoidable hospital readmissions. These avoidable readmissions are causing a growing burden upon the Medicare and Medicaid programs that many of the elderly rely upon. This issue is but one of many that the Affordable Care Act is targeting to address, as part of health care reform, in order to curb rising healthcare costs. Because of the increasing elderly population within the United States it is imperative

that this issue be address as one of the many ways to help keep Medicare solvent for all those who rely upon it, currently and into the future.

Chapter II: Review of Related Literature

a) Introduction

As reported in the 2010 Census there were approximately 40 million Americans 65 years and older. By the year 2030 there will be an estimated 80 million Americans, or 20% of the population who are projected to be 65 years or older with 2.3 % of the population being 85 years or older (Bookman & Kimbrel, 2011). It is estimated that the population of older Americans 65 years and older will double in just 20 years. (*A Profile of Older Americans*, (2010). <http://www.aoa.gov/aoaroot/agingstatistics/profile/2010/docs/2010-profile.pdf>)

According to the Erie County Department of Senior Services website there are approximately 919,040 people in Erie County, Buffalo, New York., as reported by the U.S. Census of 2010. Of that population, there are 197,365 aged 60+ (21.5% of total population); 144,364 aged 65+ (15.7% of total population); 74,435 aged 75+ (8.1% of total population); and 23,607 aged 85+ (2.6% of total population). Since 1970 the population of those 60+ has grown from 14.5 % of the population in Erie County to 21.5% in 2010. The population of those who are 60 to 85 + accounts for nearly half of the total population in Erie County. (<http://www2.erie.gov/seniorservices/sites/www2.erie.gov.seniorservices/files/uploads/pdfs/Erie%20County2010census.pdf>)

b) Review and Critique of Literature

Because of the growing number of older Americans there are several issues stemming from this tide of population growth. One issue that has been problematic is the hospital readmission rate for avoidable readmissions of Medicare patients. Prior to

the changes initiated by the Patient Protection and Affordable Care Act (ACA) of 2010, Medicare paid for all hospital readmissions, except those occurring within 24 hours of discharge for the same condition in which the patient was hospitalized. (Jencks, Williams, & Coleman, 2009) These hospital readmissions were an important component of the Obama Administration's 2009 proposal of U.S. health care reform. (Jencks et al., 2009)

Currently our health care system is undergoing several changes because of the Patient Protection and Affordable Care Act of 2010 and many of the changes target reimbursement rates to hospitals for Medicare patients. According to Volland (2012): the Patient Protection and Affordable Care Act legislation lays the foundation for potential changes in healthcare delivery and financing.... [and] the legislation contains delivery models, such as accountable care organizations (ACO), medical homes, health homes, and transitional care interventions, that offer incentives to providers for improving care for chronically ill populations. (p.13)

Additionally, Shugarman and Whitehill (2011) state that "many of the ACA's provisions address individuals with chronic illness, and are focused on improvements in how services are delivered, including payment reimbursement, public health expansion (home and community based services), and care coordination" (as cited in Volland et al., 2012-13, p.13).

The elderly population as it stands today is already affecting the growing costs and services to the health care system. This problem will increase in the next several years due to the baby boom population. People are living longer and there is the perception by many of these individuals to age in place within their community, as opposed to placement in a long term nursing facility. In addition, because of the shift in

family structure many of the elderly are living alone which causes additional problems with home transition after a hospital stay.

In an effort to control rising costs hospital administrations are restructuring many of their policies and practices, which may result in shorter hospital stays. However, Coffrey and McCarthy (2012) found that the “trends towards shorter hospital stays can result in older people being discharged in a state of incomplete recovery....[and that] significant changes may have occurred in their health status since their admission to the hospital.” (p.170)

The shorter hospital stays can lead to increased problems and as the study by Dedhia et al., (2009) found that “upon discharge, 49% of patients experience at least one medical adverse event such as medication duplication, confusing follow-up instructions, or unnecessary testing.” (p.1540) Additional problems with homecare needs, confusion by affected parties, missed appointments, and continuity of health problems causes additional stress on the individual as well as any caregivers. (Parry, Colman, Smith, Frank, & Kramer, 2003) Because of this, several individuals experience ongoing problems, many of which cause hospital readmission.

The health care industry is concerned with the rise in hospital readmissions which are in excess of 30%, (Jencks, et al., 2009) many of which are avoidable. In 2012 Medicare has begun to implement, as defined by the Medicare Payment Advisory Commission (MedPac), “[that] hospitals are responsible for the cost of 30-day readmissions that are deemed avoidable for three target diagnoses- heart failure, pneumonia, and acute myocardial infarctions.” (Kelly & Starr, 2013, p. 6) It has been estimated that within 30 days of discharge from the hospital 1 in 5 Medicare patients are

readmitted which accounts to approximately \$17 billion (Jencks et al., 2009; Parry & Coleman, 2003) or as high as \$26 billion annually as reported by the US Department of Health and Human Services, (2011) (as cited in Flora, Parsons, & Slattum, 2011).

Many of the problems noted with hospital discharges were lack of education to the individual, their caregivers and health care professionals, fragmentation of services, prescription errors, and insufficient coordination between health care professionals. (Parry & Coleman, 2003; Preyde, Maculay, & Dingwall, 2009; Peikes, Sweetland, Gilman, & Brown, 2013) Home healthcare nurses and primary physicians report that they do not receive adequate patient information regarding the hospital stay needed to effectively assume care for the patient. (Parry & Coleman, 2003) Many of the errors occur because of the gaps in information between the various healthcare professionals and the lack of accountability and are generally avoidable.

In an effort to address this situation there is a growing consensus that there needs to be a more coordinated system of hospital discharge planning and care transitions within the health care system. Coleman and Boult (2003) in the *American Geriatrics Society* define care transitions as:

A set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location....Transitional care is based on a comprehensive plan of care and the availability of health care practitioners who are well-trained in chronic care and have the current information about the patients goals, preferences, and clinical status. It includes logistical arrangements, education of the patient and family, and coordination among the health professionals involved in the transition. Transitional care, which encompasses both the sending and receiving aspects of the transfer, is essential for persons with complex needs (as cited in Golden & Shier, 2012-13, p.6).

Care Transition Models

There are several different models of transitional care to date, such as the Transitional Care Model (TCM), Care Transitions Intervention (CTI), Enhanced Discharge Planning Program (EDPP), Re-Engineered Discharge (Project RED), Better Outcomes for Older Adults through Supported Transitions (Project BOOST), and the Bridge Model (Bridge). Each model is made up of differing structures and implementation, but they focus on the risk factors associated with hospital discharge planning and care transitions, as well as the education of the patient and their care givers.

Table 1. Description of Care Transition Models

Models	Focus	Length of Follow-Up	Type of Model
Care Transitions Intervention	Transitional coach Self-care management Personal healthcare record Medication management Primary /specialist follow-up Red-flag symptoms (Peikes, et al., 2012-13)	Five contacts with a transition coach over a 30 day period. One hospital visit before discharge, one home visit within 72 hours of discharge and 3 follow-up phone contacts. (Parry et al., 2010)	Patient centered (Peikes et al., 2012-13)
Transitional Care Model	Advanced practice nurse (APN) Hospital/ home care planning. Identify post-discharge needs Medications Follow-up tasks (Levine & Feinberg, 2013; Peikes et al., 2012-13)	Patient first met in hospital Home visit within 24 hours of discharge Accompanies to first visit with primary physician Bi monthly visits 2 nd & 3 rd month- 90 day duration Phone support 7 days a week. (Peikes et al., 2012-13)	Medical (Peikes et al., 2012-13)
Enhanced Discharge Planning Program	Social worker based Coordinate care services Follow-up appointments Medication management Assessing caregiver burden (Rooney, Markovitz & Packard, 2011-12)	Interventions begin within forty-eight hours of discharge by phone. Short term duration of about 5. days. (Rooney et al., 2012-13).	Social worker based (Peikes et al., 2012)

Bridge Model	Social worker based Community/ evidenced based transitional care protocols (Atfeld ,Pavle, Rosenberg & Shure, 2012-13)	Pre-discharge, two day post- discharge and thirty-day follow-up. (Atfeld, et al., 2012-13)	Social worker based (Atfeld et al., 2012-13)
Project RED (Re- engineered Discharge)	Nurse discharge advocate who provides patient education Medication management Red-flags symptoms Physician follow appointments Discharge plan shared with the patient and all providers. (Peikes et al., 2012-13).	Follow-up is with a clinical pharmacist by phone 2 to 4 days after discharge. (Peikes et al., 2012-13)	Enhanced Discharge Process (Piekes et al., 2012-13)
Project BOOST	Toolkit used for risk assessment Interventions for identified risks Implemented with transitional care models - CTI and TCM Provides training and one year technical assistance. (Peikes et al., 2012-13)	There is no contact for low risk patients; 3 days for high risk patients by phone contact. (Peikes et al., 2012- 13)	Transitional care intervention toolkit (p Peikes et al., 2012-13)

Expanded table in Appendices A.

Assessing the Models

Two models that have been studied over the past two decades and are reported in much of the current literature are the Care Transitions Intervention developed by Eric Coleman and the Transitional Care Model developed by Mary Naylor. The two models are designed to reduce costs for adults with multiple health conditions and to manage healthcare between different locations as the patient transitions between the hospital and home. As stated by Volland (2012):

both programs engage patients with chronic illnesses while hospitalized; follow patients intensively post-discharge (four to twelve weeks) and use a transitional coach or team to manage clinical, psychosocial, rehabilitative, nutritional, and pharmacy needs; teach or coach patients about medications, self-care, and symptom recognition and management; and remind and encourage patients to follow-up with physician appointments. (p.14)

The structure of the Care Transitions Intervention model encompasses four main concepts or pillars of interventions to educate and empower the patient so they can co-

manage their care. (Kelly & Starr, 2013) The four pillars are 1) medication self-management, 2) a personal health record, 3) primary care and specialist(s) follow-up, and 4) red flags, or knowledge of what to do when their condition worsens. (Parry & Coleman, 2010; Kelly & Starr, 2013) The model incorporates a transition coach, a Registered Nurse or Advanced Practice Nurse, who teaches the patient and caregiver self-management and communication skills so that they are able to effectively coordinate in their care. Its emphasis is on empowering the patient to communicate important aspects of their care as well as personal goals. Parry and Coleman (2010) state that the “structure of the intervention involves 5 contacts with a Transition Coach over a thirty-day period: a hospital visit before discharge; a one-hour visit occurring within 72-hours after discharge; and three follow-up phone calls.” (p.47)

The Transitional Care Model uses a Transitional Care Nurse (TCN) who initiates a comprehensive in-hospital plan and home follow-up for high-risk older adults who are chronically ill. The TCN “provides services to streamline plans of care, interrupt patterns of frequent acute hospital and emergency department use, and prevent health status decline.” (“Transitional Care Model”, 2008-2009. <http://www.transitionalcare.info/>, TCM Overview, para. 1)

The model is based on the following key components: 1) focus on patient and caregiver understanding, 2) help patients manage their health issues and prevent decline, 3) medication reconciliation and 4) Transitional Care, not ongoing case management. (“Transitional Care Model”, 2008-2009. <http://www.-transitionalcare.info/>, Key Components, para. headings 1-4) The first visit is within 24 hours of discharge and the TCN attends the first follow-up physician visit with the patient. Additionally,

there are bimonthly visits during the second and third month and TCN phone support 7 days a week. (Peikes et al., 2012)

The Enhanced Discharge Planning Program (EDPP), which is a newer model created in 2007, “has four phases: referral, pre-assessment, assessment and intervention [with the] average duration of an intervention for five days.” (Rooney et al., 2011-12) The program takes a “holistic approach” that uses social workers with master’s degrees who coordinate the different services associated with the discharge planning which pay particular attention to assessing medication management, follow-up visits and the ability of the caregiver to cope with the care demands. (Rooney et al., 2011-12) The intervention is initiated by phone within forty-eight hours after the patient is discharged. (Rooney et al., 2011-12)

The EDPP model uses a daily Risk Report that is taken from an electronic medical record of the patient to assess risk factors. The medical record includes: notes on items such as re-admission within six months; insurance barriers; primary diagnosis and problem list; history of heart failure; number of medications; high-risk medications; learning barriers; falls risk; pain score; diagnosis of depression; psychosocial needs and disposition of home health. (Rooney et al., 2011-12)

The Risk Report is used to assess the risk factors associated with the patient and is used to determine who should be followed by EDPP after discharge.

The Bridge Model is an evidenced based care transitional model that holds promising efforts to address avoidable hospital readmissions through use of community based services. The model is a social worker based transitional care program that not only assesses a patient’s medical needs, but also looks at psychosocial and community factors that may have an influence on a patient’s ability to have a successful care

transition. Some of the psychosocial issues include family dynamics, cultural differences, confusion regarding illness, and knowledge of available resources within the community. (Altfeld et al., 2012-13)

The model consists of three stages: “pre-discharge, two-days post discharge and a thirty-day follow-up.” (Altfeld et al., 2012-13, p.99). The pre and post discharge assessment according to Altfeld et al., (2012-13), “drive the intervention, which consists of setting up the relevant community resources, advocating on behalf of the client while making follow-up appointments, troubleshooting breakdowns, providing brief counseling, and facilitating communication between professionals.” (p. 100) The Bridge Model works to serve as a bridge between the medical needs of a patient as well as addressing psychosocial and community issues that may affect a patient transitioning home from a hospital stay.

Project RED (Re-engineered Discharge) and Project BOOST (Better Outcomes by Optimizing Safe Transitions) are two models that employ outside assistance to hospitals through toolkits and mentorship.

Project RED was developed to improve the hospital discharge process and reduce re-admissions rates. The patient and caregiver review a written discharge plan in order to understand what the diagnosis is, any medications prescribed and what needs to be followed once the patient is home. A follow up by phone after discharge is done to reinforce the information. (Levine & Feinberg, 2012-13) It is made up of 12 different components which are:

- 1) ascertain need for and obtain language assistance, 2) make appointments for follow-up medical appointments and post discharge tests/labs, 3) plan for the follow-up of results from the lab tests or studies that are pending at discharge, 4) organize post-discharge outpatient services and medical equipment, 5) identify the correct medicines

and a plan for the patient to obtain and take them, 6) reconcile the discharge plan with national guidelines, 7) teach a written discharge plan the patient can understand, 8) educate the patient about his or her diagnosis, 9) assess the degree of the patient's understanding of the discharge plan, 10) review with the patient what to do if a problem arises, 11) expedite transmission of the discharge summary to clinicians accepting care of the patient and 12) provide telephone reinforcement of the discharge plan. ("Components of Re-Engineered Discharge", 2007-2013. <http://www.bu.edu/fammed/projectred/components.html>, RED Component headings 1-12)

Project BOOST is a program that works in combination with CTI and TCM models and offers guidelines and a toolkit to hospitals for employing their own care transitions and interventions. (Peikes et. al., 2012-13) Components of BOOST are 1) discharge instructions that are communicated to patient and primary care providers, 2) risk assessment, and 3) teach-back process. Additionally, there are implementation tools that specifically provide recommendations for each component and the program training and one year of technical assistance to participating hospitals. (Peikes et. al., 2012-13)

Each model mentioned contains elements designed to implement a better and more efficient hospital discharge in hopes of avoiding 30-day readmissions. The Coleman and Naylor models are patient education centered to empower the patient to take control of their healthcare by using transition coaches. These two models mainly focus on the medical aspects of the discharge, which are very important, but fail to take into account to a larger extent, other problems that exist with elderly patients including psychosocial needs. According to The Bridge Model website psychosocial needs are such things as:

limited financial or community resources, adjustment to having an illness, low health literacy, caregiver stress, [and] the need for homecare or residential placement [which] can contribute to problems during transitions of care and increase an older adults risk of medical complications. ("Psychosocial factors", n.d. <http://www.transitionalcare.org/transitional-care/psychological-factors/>, p.1)

Additionally, Project RED and BOOST are models that again focus mainly on the medical aspect of the discharge and piggy back off the existing CTI and TCM models. Also, there is a very short follow-up period of only up to 5 days post discharge. This short period of follow-up is a limitation on the success of these two models.

Many of the care transition models neglect to take into account the social problems that an elderly patient may experience after a hospital stay. These social factors could have a direct affect on the transition home because without the added support from community services many patients and their family/caregivers, though “empowered” with their medical care, do not have many of the resources needed to sustain the transition. The study by Popejoy (2008) found that it is important for a care transition model to:

understand the broader social problems that affect older adults at the time of hospital discharge, such as difficulty understanding home treatments and medications, problems with family caregiving, competing demands on family caregivers, and the overall effect of chronic conditions on daily life. (p.327)

In addition, many elderly patients may live alone with little to no assistance from family members or other caregivers, thus presenting an added complication to the care transition process.

As the elderly population grows the healthcare industry, as well as those who provide caregiving will feel the pressure of this added complication. According to the article Second Act, Improving the Quality of Life for Older Adults in Buffalo and Erie County (2012):

over 57% of older adults rely entirely on unpaid help, and another 36% on a combination of paid and unpaid help. On average, informal caregivers provide 18 hours of care per week, and 40% provide at least 40 hours of care per week. (p.19)

This presents a large number of individuals who have to provide care for older adults which has an impact not only on family/caregiver burdens and stress, but can have a negative economic affect as well.

Because of the demand of caring for an older adult or family member many caregivers, more than 50%, have to change their work schedules to be more flexible or to work less hours and approximately 50% of all caregivers have to temporarily or permanently give up work. (Second Act, 2012) According to a study at Brandeis University it was “estimated that caregivers lose \$659,000 in lost wages, Social Security benefits, and pension benefits over a lifetime....[and] in 2009 alone, the estimated value of caregiving in the United States was approximately \$450,000 billion.” (Second Act, 2012, p. 19)

Additionally, in 2009 as reported in A Profile of Older Americans: 2010, (2010) it was estimated that “about 30% (11.4 million) of non-institutionalized older persons... lived alone (8.3 million women, 3.0 million men)....[and] the proportion of living alone increases... with age. [Additionally] among women aged 75 and over...half (49%) lived alone.” (<http://www.aoa.gov/aoaroot/agingstatistics-/profile/-2010/docs/2010profile.pdf> p.5) These numbers represent a staggering realization of the problems currently facing our country with the older adult population and the burden it represents to our healthcare system and as well as our economy.

Another factor in the care transition process is that of the growing ethnic population in the United States which adds an additional obstacle to be addressed. Problems associated with ethnic groups may include language, cultural, and communication barriers which can hinder the discharge process and care transition to

home. Few studies have been conducted to date, but according to Graham, Ivey & Neuhauser (2009):

the aging population in the United States is becoming more ethnically diverse....[with] estimates [that] show...the population of minority elders in the United States will increase more rapidly than the general population. By 2050, demographers estimate that one in four older adults in the United States will be from an ethnic minority group - representing a 385% increase....Thus, socioeconomic, racial or ethnic, and cultural factors, as well as language and literacy, will be increasingly important to consider in designing future transitional care models. (p. 24)

The estimated growth of not only our elderly population, but of those from ethnic groups within the United States is clearly an issue to be dealt with in the discharge process. According to the study by Graham et al., (2009), they found that comparatively ethnic groups “have slower rates of recovery after hospitalization and increased incidence of potentially preventable hospitalizations ...which may be caused by “knowledge gaps” that may hinder their ability to access and use health care information.” (p. 23-24) These issues are cause for concern because of the estimated growth of the ethnic population in the United States, which will only put additional stress on our healthcare system if not properly addressed.

The Enhanced Discharge Planning Program (EDPP) and the Bridge Model are two of the models that begin to address more than just the medical needs of the patient. They also include in the discharge planning process the psychosocial needs of the patient and the family/caregivers. However, the EDPP is of short term duration, whereas the Bridge Model extends to a thirty day follow-up.

The Bridge Model was conceived and designed by experienced social workers in Illinois. They wanted to address the gap in other transitional care models resulting in the Illinois Transitional Care Consortium (ITCC) which is now “an evidence-based

approach to transitional care recognized by the Administration on Aging.” (Rosenberg & Shure, 2011, para. 5) The Bridge Model is a social worker based approach to dealing with hospital discharges that focuses on the patient and their medical as well as psychosocial needs.

The Bridge Model was one of the first to use social workers as an approach to transitional care. The use of “master’s prepared” social workers is very important because they are able to identify gaps within the discharge process. The social workers not only have an understanding of the medical issues of the patient, but can identify what community based services may be needed and begin to put them into place pre-discharge. Through understanding of how to work with older adults transitioning from a hospital stay, the social workers add an extra layer of support by using community based programs designed for the elderly so they are able to safely transition back into the community.

The knowledge of community resources by the social worker is an essential piece to bridging the gap between the hospitals to home. Therefore, the social worker must be knowledgeable in the resources within their service area, because many older adults and their caregivers may not have knowledge of all the community services available to them. An example of the social workers assistance, as stated by Rosenberg & Shure (2011), is explained as:

while the older adult may have been told upon discharge what medications to take by their doctor...[they] may not have information on benefits assistance to be able to afford the medications. [The social worker’s] offer benefits assistance and guide patients through the often confusing process of securing financial assistance. (para. 13)

A vital part of the model is the Aging Resource Centers (ARC) located inside of hospitals that “provide a dedicated space for older adults and their caregivers to explore community resources, health information, and caregiving materials, and to develop community care plans prior to discharge.” (Rosenberg & Shure, 2011, para 7) The ARC characterizes a “real-world” relationship between the hospital and the community and begins to familiarize the patient and family/caregivers to community based services.

The Bridge Model takes the extra steps needed to assist the older adult in the sometimes frightening hospital to home transition. The added guidance by knowledgeable social workers is important because it helps to better support the patient and family/caregiver through the transition and covers all the bases ensuring a safe transition home.

Each one of the models mentioned above has been designed to improve the discharge process and home transitions for the hospital patient. They are but a few of the models in use or being piloted to address the problems of inadequate hospital discharges and care transitions that currently plague our healthcare system. It is imperative that hospitals work on improving their hospital discharge planning and working together with community based services to streamline the home transition process in order to cut costs and to provide for better patient care.

In order to alleviate the growing problem of avoidable 30-day hospital re-admissions and to reduce costs associated with them, there needs to be better coordination of services in place. The Medicare program is already overburdened, as well as our healthcare system, which makes finding solutions to the problems associated with avoidable hospital readmissions even more critical in the coming years.

c) Summary

This review showed that most of the studies focused on several of the problems associated with hospital discharges and care transitions, in particular medication errors, poor coordination between healthcare providers, and confusion by patients and caregivers. Many Care Transition Models are currently in use in an effort to make the hospital discharge more effective and to attempt to alleviate the problems and issues related to care transitions. It is expected that these models will increase the likelihood of more successful care transitions, however the success of the models will not be fully understood until the first phase of the provisions set in place by the ACA of 2010 have been evaluated.

Chapter III: Methodology

a) Design of Study

In an effort to learn more about what promotes or hinders a successful care transition, a mail-based survey consisting of 17 questions was created to determine what, or if, evidence-based programs support the care transitions and to assess the availability of those programs in Erie County. The research was to identify primary evidence based models, and the strengths and weaknesses of those models and to determine what gaps exist in the delivery services systems. Additionally, if gaps were identified, could the gaps be corrected by using existing Senior Services programs? Survey Instrument in Appendices B.

Statement of Hypothesis

Alternative: The availability of evidence based Care Transitions programs in Erie County is insufficient to meet the demand for such programs created by the Affordable Care Act of 2010.

Null: The availability of evidence based Care Transitions programs in Erie County is sufficient to meet the demand for such programs created by the Affordable Care Act of 2010.

To determine if gaps exist, an inventory of the Care Transition programs provided within Erie County was necessary. The inventory was in response to a New York State initiative relating to the Affordable Care Act (ACA) of 2010, and recent changes by the Center for Medicare Services. This recent legislation, particularly Section 3026, encourages collaboration between community based providers and hospitals to reduce avoidable 30-day readmissions. This was a quasi-experimental model that compared the strengths and weaknesses of the care transition programs currently being utilized

within Erie County. The emphasis was to better coordinate care and services for Medicare beneficiaries aimed at cost savings and better patient care.

b) Sample Selection

After obtaining institutional review board approval, a convenience sample was taken of hospitals and skilled nursing facilities within Erie County. Of the hospitals, 14 were initially chosen to participate in the survey. Out of the 14 hospitals, three were eliminated because one did not serve an elderly population, one was a drug/alcohol treatment facility, and the third provided acute care only. After the three hospitals were eliminated, 11 were deemed eligible for the survey.

There were 13 skilled nursing facilities within Erie County selected for the survey. At the present time they are not part of the 30-day avoidable readmission population targeted in the Affordable Care Act of 2010. They were included to provide a preliminary assessment of Care Transitions use in nursing homes, and to determine if further analysis should be done under a separate project.

c) Data Collection Methods

The survey along with an informed consent was administered through U.S. postal mail and electronically to hospitals (patient discharge planners) and skilled nursing facilities within Erie County from March 2014 to April 2014. Each prospective respondent was sent a courtesy letter from the Erie Country Department of Senior Services that provided information regarding the forthcoming survey. An additional courtesy email was sent prior to the mailing of the surveys. Following the mailed survey, online surveys were emailed to respondents to provide convenience to respondents in completing the survey. A follow-up courtesy email was sent out to non-respondents informing them that phone interviews would be conducted.

From the phone interviews conducted, one hospital refused to participate in any survey and the remainder opted to return the completed survey via mail.¹

d) Data Analysis

The frequency analysis was done using IBM SPSS Statistics 21. Questions for the survey were designed to gather data on whether the hospital currently used an evidence based care transition model, general effectiveness of the model and what factors may affect or inhibit a successful hospital discharge and care transition in relation to avoidable 30-day readmissions.

One of the primary aims of the research was to examine what the delivery gaps were in the services systems between the hospital to home transition and the use of community based services within Erie County. Eleven hospitals were contacted and data was gathered via a mailed survey. Of 11 possible respondents, eight (73%) completed and returned the survey.

The survey was designed to identify what, if any, care transition models are currently in use by the hospitals and to determine their effectiveness on avoidable 30 readmissions. A secondary goal of the survey was to identify what factor(s) were a hindrance to a successful hospital discharge and care transition.

¹ Because of the low response from skilled nursing facilities, 13 were randomly selected and only 5 responses were returned, they were eliminated from the findings.

Chapter IV: Results, Summary, Conclusion

Results

*Is There an Institutional Process to Review 30 Day Readmissions?
Who is Involved in Review Process?*

The results of the survey showed that all (100%) of the respondents indicated that their institution had a process in place to review 30 day readmissions. Of those who are involved in the review process it was reported that hospital administration/staff are (100%) involved, while others such as post service representatives (25%), in-home services providers (25%) and others (12.5%) are also involved.

*Does Your Institution Have Their Own Model or Evidence Based?
If Using Evidence Based Model, Which Model is Your Institution Using?*

Respondents were asked to identify (the question only required one answer) whether they were using an evidence based model or their own model. Half (50%) identified that they were using an evidence based model while the other half (50%) reported using both an evidence based model(s) and their own model. Of the fifty percent using a combination of two or more models, their own and an evidence based model, three use a combination of their own model and Project Boost (a model using a combination of both the CTI and TCM models) and one reported use of Re-engineered Discharge (RED), Better Outcomes by Optimizing Safe Transitions (Project Boost) and a note written as a “hybrid oncology” model.

*Does Your Institution See a Reduction in 30 Day Readmissions Since Adopting Care Transition Model?
Could the Care Transition Model be Improved?*

When respondents were asked if their institution had seen a reduction in 30 day readmission rates since adopting care transitions models, half (50%) reported that they had seen a reduction, one (12.5%) reported that they saw no reduction, two (25%) were unsure and one respondent (12.5%) answered both yes and no to the answer. In addition, respondents were asked if they believed that the way their institution uses its care transition model on a day to day basis could be improved and more than half (62.5%) said yes while the remainder (37.5%) reported no.

What Are Recommendations to Improve Care Transition Approach?

Three quarters (75%) recommended extending the length of time that the patient is followed as a way to improve the care transition approach, while only one eighth (12.5%) recommended starting the discharge planning sooner. Just over one third (37.5%) indicated better coordination with the primary care physicians and other health care providers was needed for improvement of the care transition. While one eighth (12.5%) specified better coordination between the hospital service providers (physicians, nurses, etc.) and one eighth (12.5%) indicated better coordination of home and community based providers.

What is the Greatest Hindrance to a Successful Hospital Discharge?

Interestingly, when respondents were asked what the greatest hindrance was to a successful hospital discharge, just over one third (37.5%) clearly indicated that lack of social supports (home delivered meals, in-home personal care, and transportation to doctors' appointments) was the greatest hindrance. However this question, as several others, posed difficulty in answering because one answer was required and more than one answer was selected. In total then, all (100%) indicated that lack of social supports

was the greatest hindrance and to some extent medication management, follow-up care by a primary physician or specialist, and coordination of care between health care providers.

Hand written notes on this particular question specified that some of the difficulties with medication management were “no insurance coverage for all meds or cannot afford co-pays” as well as “medication costs.” Additional notes indicated that follow-up care by a physician or specialist “within 1 week of discharge is ideal” and lack of social supports “responsible care givers” were factors that hindered a successful care transitions. The problems most associated with a successful care transition, as indicated by the survey results, are medication management and lack of social supports.

For the frequencies of other questions, please refer to Appendices C.

Summary

Many of the models currently being used by the respondents are medical/hospital based models with their primary elements focusing on what is being done within the hospital regarding the hospital discharge process in order to promote a successful hospital discharge. This is a critical first step as indicated by the literature which found that medication errors and lack of coordination between healthcare providers as contributors to the problems associated with the hospital discharge and care transition. The models identified by the survey results showed that the CTI, TCM, and BOOST (one used RED) were mainly used by the respondents along with a few hybrid models combining these models and their own.

Out of the models used by respondents the CTI and TCM are the more effective of the models and have many of the elements in place to address the needs that were

identified in the survey. The longer duration of follow-up post discharge was indicated to be an important recommendation by respondents to improve the care transition. Both CTI and TCM have a longer post follow-up period.

BOOST, RED and EDPP are good to an extent and do address many of the issues; however they have a short duration of post discharge follow-up making them less effective of the models used. The results of the survey indicated that even with the use of evidenced based models there are still areas of the hospital/discharge that are in need of improvement, such as medication management and the lack of social supports (community based programs).

Additionally, the survey results found that although some issues and questions were clear in their intention, many key questions regarding care transition models, their effectiveness, and recommendations for improvement pose a problem and show the difficulties of this matter. The questions requiring one answer, but where additional answers were also chosen or where handwritten notes were included, show the complexity of care transitions and how hospitals are still struggling with trying to find solutions to the avoidable 30 day readmissions.

Even though all hospitals reported having evidence based model(s) in place, the use of the models are not a cure all for a successful Care Transition and the 30 day avoidable readmissions. Therefore, hospitals should look beyond the models currently in use which are mostly hospital based, and investigate model(s) that address more than the medical/hospital issue of a Care Transition.

Conclusions

It has been shown that problems still exist with hospital discharges and 30-day avoidable readmissions. As hospitals are working to reduce avoidable readmissions, they need to build better relations with home and community based services so as to manage the sometimes complex nature of avoidable hospital readmissions. It is important that patients, particularly the elderly and many of whom have several complex health conditions, be able to find post discharge services within their communities. The models in use by area hospitals are working to address issues related to the processes within the hospital, but need to extend beyond the hospital and reach out to community partners to ensure better care transitions post discharge.

Chapter V: Discussion

a) Implications of Possible Outcomes

Findings from this survey support that it continues to be a challenge to hospitals to find the correct model or combination of models or processes to promote successful hospital discharges and care transitions. In addition, the survey found that issues such as medicine management, coordination of care between health care providers, and lack of social supports are still complex issues and difficult to manage. The Care Transition models implemented are helping to an extent; however still fall short of managing the problems associated with avoidable 30 readmissions.

The issue of avoidable 30 day readmissions, which is part of the ACA and Medicare reimbursement guidelines must be dealt with because of the ever increasing elderly population. Currently there are three conditions “heart failure, pneumonia, and acute myocardial infarctions” (Kelly & Starr, 2013, p. 6), that the ACA targets as conditions relating to the reimbursement guidelines for avoidable 30 day readmissions. According to the MedPac (2013) report, in 2015 “the program will be expanded to at least four additional conditions, including chronic obstructive pulmonary disease, coronary artery bypass graft surgery, percutaneous transluminal coronary angioplasty, and other vascular conditions as well as other conditions.” (Medicare Payment Advisory Commission (MedPac), 2013, p.98)

This increase in conditions, within a year, will most likely add to the already complicated issue of avoidable 30 day readmissions which makes finding solutions to this matter even more critical for many hospitals. Therefore, hospitals need to look

beyond what they are currently doing to reduce readmissions in order to garner better results.

Many of the models currently in use are medical/hospital based models which work with the issues of medication management, coordination of care of healthcare providers and patient education. These are all critical components and ones that according to the survey are still in need of improvement. This was evidenced by the results of the survey and by handwritten notes on some of the returned surveys. However, all respondents indicated that lack of social supports was one of the greatest hindrances to a successful hospital discharge.

Hospitals need to look beyond just the discharge process and reach out into the community to work in collaboration with home and community based services that can add additional support to the hospital discharge. As mentioned earlier, the Bridge Model shows promise as a model that reaches beyond the medical models and incorporates the added layer of support by using social workers who are experienced with what home and community based services are available within an area. The Bridge Model addresses the psychosocial elements that are needed in the care transition, as well as the medical components of the hospital discharge.

As indicated in the survey, and included in handwritten notes, the problem with medication management goes beyond keeping a detailed record of medications that a patient may be receiving, but once the patient leaves that hospital there are issues with affordability of the medications. According to the written notes, 'medication costs" and "no insurance coverage for all meds or cannot afford co-pays" indicates a few of the problems patients are faced with once leaving the hospital. If this is currently an issue

that is not effectively dealt with in the hospital as part of the discharge procedure, then it is one that should be.

In addition to medication costs, respondents (75%) also indicated that the length of time a patient is followed once they are discharged from the hospital is something that should be improved. Some of the models do address this within their structure, however they are usually done so via phone calls to the patients. This is where better collaboration between hospitals and community services is needed because many of the home and community services may be able to provide for a more personal interaction that is needed in the transition to home.

Erie County Department of Senior Services offers many community supports that would help the elderly who are transitioning home from the hospital by providing services that help with many of the issues facing senior patients. But as shown by the survey, there is still a disconnect between the hospitals and the home and community based services. The department should meet with area hospitals to provide a better understanding of all the home and community based services that are provided within Erie County.

The survey indicates that medical management, namely the affordability of the medications, may be one issue that the department can focus on when dealing with area hospitals to provide information as to the programs that offer some financial assistance to those who have difficulty in affording their medications. Additionally, the survey indicated lack of social supports, such as home delivered meals, in-home personal, and transportation to doctors' appointments hinder the care transition. Again

this is where the Department of Seniors Services needs to relay to the hospitals the services that are available to elderly patients in who are in need of these services.

The evidenced based Care Transition models are working to improve some of the issues within the hospital and that is the critical first step, but the models do not extend enough in the post discharge period and this is where the home and community based services provided by the Erie County Department of Senior Services can assist. By providing and working with the hospitals to identify to all services available, the hospitals can better incorporate the use of these services in the very beginning of the hospital discharge process.

Something to consider is how long it takes for some of the services to start once a patient is discharged from the hospital. Is it a few days or a few weeks? If it is more than 2 to 3 weeks to start some of the needed services, then it may be too long because complications may already be happening with the patient that sends them back to the hospital within that 30 day time frame. And depending on what the service is it may need to be done even sooner.

b) Limitations of Study

There are limitations to this study. The sample size is small because it was derived from only the hospitals within Erie County. The study asked general questions about the hospital discharge, rather than focusing on more in depth issues related to specific discharge procedures/events. The purpose was to canvass Erie County hospitals to understand and identify what Care Transition models are in use and the gaps in the services systems, however a larger sample would most likely produce better results.

c) Future Research

The health care system within the U.S will continue to face challenges as the population of elderly increases and the need for health care services will increase as well, making managing problems with the hospital discharge process a critical priority. In the coming year, 2015, there will be more conditions added to the ACA reimbursement guidelines which in many cases may compound already existing problems that hospitals are facing. Much of the literature has focused on the hospital discharge and care transitions to date. The “first phase” of the implementation of conditions tied to avoidable 30-day readmission rates will be coming to a close in 2015. Studies should be conducted to analyze the success rates of care transitions over the past three to four years and to assess whether the current practices and hospital based models are truly sufficient in curbing the avoidable readmission rates.

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I would like to thank Dr. Diane Oyler and the Erie County Department of Senior Services for allowing me to work on this study. I have a personal interest in the matter of hospitalizations and hospital discharges as I have had to deal with difficult ones on two separate occasions. I have experienced firsthand the difficulties that the transition from hospital to home is for patients, especially the elderly and those with multiple health conditions.

The discharge process was particularly hard to understand and was a frightening time for both the patient and myself who had to deal with the complicated paperwork, medications, schedules and follow-up appointments with the primary care physicians and specialists naming but a few of the issues. It was very difficult to receive any information of what services were available within the community that may have been helpful to either or both cases. Additionally, once services were identified it took several weeks before they started and there was a bureaucracy of paperwork to be completed.

One of the cases ended well, but took several months to get the proper supports in place, however the other ended sadly and still to this day I wonder if I had been able to get the support and services needed if it would have had a better ending.

Appendices A

Table 1. Care Transition Models

Models	Focus	Length of Follow-Up	Type of Model
Care Transitions Intervention	Self-management is taught by a transition coach to enable the patient/caregiver to coordinate their care more effectively using a personal health record, medication management, primary care and specialist follow-up, and to recognize red-flag symptoms. (Peikes, et al., 2012-13)	Five contacts with a transition coach over a 30 day period. One hospital visit before discharge, one home visit within 72 hours of discharge and 3 follow-up phone contacts. (Parry et al., 2010)	Patient centered (Peikes et al., 2012-13)
Transitional Care Model	Comprehensive in-hospital planning and home follow-up care coordination by an advanced practice nurse to assess post-discharge needs, medications and other follow-up tasks. (Levine & Feinburg, 2013; Peikes et al., 2012-13)	Patient/caregiver first met in hospital, first home visit within 24 hours of discharge, accompanies patient to first visit with primary physician and bimonthly visits during second and third month. Phone support 7 days a week. (Peikes et al., 2012-13)	Medical (Peikes et al., 2012-13)
Enhanced Discharge Planning Program	Social workers with master's degrees coordinate care services using a holistic approach to evaluate a post-discharge care plan. Attention is paid to follow-up appointments, medication management, and assessing caregiver burden. (Rooney, et al., 2011-12)	Interventions begin within forty-eight hours of discharge by phone. Short term duration of about 5 days. (Rooney et al., 2011-12).	Social worker based (Peikes et al., 2012-13)

Bridge Model	Social worker based transitional care model that integrates transitional care practices based in the community with evidenced based transitional care protocols developed in a hospital (Altfeld et al., 2012-13)	Pre-discharge, two day post-discharge and thirty-day follow-up. (Altfeld, et al., 2012-13)	Social worker based (Altfeld et al., 2012-13)
Project RED (Re-engineered Discharge)	Nurse discharge advocate who provides education to the patient concerning medication management, instructions about red flags and coordination of physician follow appointments. There is an evidence based written discharge plan that is shared with the patient and all providers. (Peikes et al., 2012-13).	Follow-up is with a clinical pharmacist by phone 2 to 4 days after discharge. (Peikes et al., 2012-13)	Enhanced Discharge Process (Peikes et al., 2012-13)
Project BOOST	It provides hospitals with a toolkit used to assess risk assessment with interventions for identified risks. It is implemented with other transitional care models such as CTI and TCM and provides training and one year technical assistance. (Peikes et al., 2012-13)	There is no contact for low risk patients; 3 days for high risk patients by phone contact. (Peikes et al., 2012-13)	Transitional care intervention toolkit (p. Peikes et al., 2012-13)

Appendices B.

Survey Instrument

Care Transitions Survey

Care Transitions: Assessing the Delivery Gaps in Services Systems in Erie County

The Erie County Department of Senior Services and the Niagara County Office for the Aging is seeking information that will help to establish a better understanding of the current state of care transition use in hospitals and skilled nursing facilities throughout the region. As a first step, we are conducting a brief survey to assess the availability. Please answer the following questions to the best of your ability. Your responses will be kept confidential.

1. Does your institution currently have a process in place to review 30 day readmissions?
 - a. Yes
 - b. No

2. If so, who is involved in the review process? (Check all that apply)
 - a. Hospital administration/staff
 - b. Post service representatives
 - c. Supportive in-home services providers
 - d. Others, specify
 - e. NA

3. Which of the following do you feel is the greatest hindrance to a successful hospital discharge?
 - a. Medication management
 - b. Follow-up care by a primary physician or specialist
 - c. Coordination of care between health care providers
 - d. Lack of social supports, such as home delivered meals, in-home personal care, transportation to doctors' appointments
 - e. Other, please explain

4. Does your institution currently have a care transitions program in place?

- a. Yes
- b. No **If no, please go to question number 13.**

If yes,

5. Which patient-types participate in the care transition program? (check all that apply)

- a. Heart attack (AMI) patients
- b. Heart failure (HF) patients
- c. Pneumonia patients
- d. Hip/knee replacement patients
- e. All patients
- f. Not Sure
- g. Others [Specify: _____]

6. Did your institution develop its own care transition program or are you using an evidenced based model?

- a. Our own model
- b. An evidence based model

7. If you are currently using an evidence based care transitions model, which model are you using?

- a. Care Transitions Intervention (Colman)
- b. Transitional Care Model (Naylor)
- c. Enhanced Discharge Planning Program (EDPP)
- d. Re-engineered Discharge (RED)
- e. Better Outcomes by Optimizing Safe Transitions (Project Boost)
- f. Other model, please briefly describe.
- g. NA

8. Has your institution seen a reduction in 30 day readmission rates since adopting the care transitions model?

- a. Yes
- b. No
- c. Not sure

9. If yes, do you believe that the care transitions model contributed to the reduction?

- a. Yes
- b. No
- c. Not sure

10. Do you believe the way your institution uses its care transitions model on a day to day basis could be improved?

- a. Yes
- b. No
- c. Not sure

11. If you could recommend an improvement in your institution's current care transition approach, what would you do differently? Please choose all that apply.

- a. Extend the length of time that the patient is followed once they are discharged
- b. Start the discharge planning sooner
- c. Better coordination between the hospital service providers (physician, nurses, etc.)
- d. Better coordination with primary care physician and other care providers
- e. Better coordination with home and community based services providers
- f. None of the above

12. What else could make your institution's care transitions program stronger?

13. If your institution is not currently using a care transition model in the discharge process, what do you believe is the reason?

- a. Cost
- b. Lack of staff resources

- c. Lack of expertise
- d. Value of the program has not been proven
- e. Other, please briefly explain

14. Do you believe 30 day readmission rates could be improved if your institution adopted a care transitions model?

- a. Yes
- b. No
- c. Not sure
- d. NA

15. How long have you worked at your present institution?

- a. 0-5 years
- b. 6-10 years
- c. 11-20 years
- d. 21 + years

16. Would you be willing to participate in a short interview to explore this topic more fully?

- a. Yes
- b. No

17. If yes, please provide us with the best contact number:_____

Thank you for your participation.

Appendices C.

Frequency Tables

Frequencies

Statistics

	Name	Q1 30 Day Admission Process in Place	Q2 Involved in Review Process-- Administration	Q2 Involved in Review Process-- Post Service Reps	Q2 In Home Service Providers
N	Valid	8	8	8	8
	Missing	0	0	0	0

Statistics

	Q2 Others	Q2 NA	Q3 Greatest Hindrance to Successful Discharge	Q4 Current Care Transition Program in Place	Q5 Patient Types- Heart Attack (AMI)
N	Valid	8	8	8	8
	Missing	0	0	0	0

Statistics

	Q5 Patient Types- Heart Failure (HF)	Q5 Patient Types- Pneumonia	Q5 Patient Types- Hip/Knee Replacement	Q5 Patient Types- All Patients	Q5 Patient Types- Not Sure
N	Valid	8	8	8	8
	Missing	0	0	0	0

Statistics

	Q5 Patient Types- Others	Q6 Own Care Transition Model or Evidence Based	Q7 Which Care Transition Model Using	Q8 Reduction in 30-Day Readmissions- Using Care Transition	Q9 Did Care Transition Model Contribute
N	Valid	8	8	8	8
	Missing	0	0	0	0

Statistics

		Q10 Improvement on Care Transition Model in Use	Q11 Extend Time Patient Followed Post Discharge	Q11 Start Discharge Planning Sooner	Q11 Better Coordination of Hospital Service Providers	Q11 Better Coordination of Primary Care and Other Providers
N	Valid	8	8	8	8	8
	Missing	0	0	0	0	0

Statistics

		Q11 Better Coordination with Home and Community Services	Q11 None of the Above	Q13 No Care Transition in Place - Why	Q14 30-Day Readmission Rates Improved if Using a Model	Q15 How Long at Present Institution
N	Valid	8	8	0	8	8
	Missing	0	0	8	0	0

Statistics

		Q16 Participate in Short Interview	Q17 Contact Number
N	Valid	8	8
	Missing	0	0

Frequency Table

Q1 30 Day Admission Process in Place

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

Q2 Involved in Review Process--Administration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

Q2 Involved in Review Process--Post Service Reps

	Frequency	Percent	Valid Percent	Cumulative Percent
No	6	75.0	75.0	75.0
Valid Yes	2	25.0	25.0	100.0
Total	8	100.0	100.0	

Q2 In Home Service Providers

	Frequency	Percent	Valid Percent	Cumulative Percent
No	6	75.0	75.0	75.0
Valid Yes	2	25.0	25.0	100.0
Total	8	100.0	100.0	

Q2 Others

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q2 NA

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	8	100.0	100.0	100.0

Q3 Greatest Hindrance to Successful

Discharge

	Frequency	Percent	Valid Percent	Cumulative Percent
	5	62.5	62.5	62.5
Valid Lack of Social Supports	3	37.5	37.5	100.0
Total	8	100.0	100.0	

Q4 Current Care Transition Program in Place

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	8	100.0	100.0	100.0

Q5 Patient Types- Heart Attack (AMI)

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q5 Patient Types- Heart Failure (HF)

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q5 Patient Types- Pneumonia

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q5 Patient Types- Hip/Knee Replacement

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	8	100.0	100.0	100.0

Q5 Patient Types- All Patients

	Frequency	Percent	Valid Percent	Cumulative Percent
No	2	25.0	25.0	25.0
Valid Yes	6	75.0	75.0	100.0
Total	8	100.0	100.0	

Q5 Patient Types- Not Sure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	8	100.0	100.0	100.0

Q5 Patient Types- Others

	Frequency	Percent	Valid Percent	Cumulative Percent
No	4	50.0	50.0	50.0
Valid Yes	4	50.0	50.0	100.0
Total	8	100.0	100.0	

Q6 Own Care Transition Model or Evidence Based

	Frequency	Percent	Valid Percent	Cumulative Percent
Evidence Based Model	4	50.0	50.0	50.0
Valid	4	50.0	50.0	100.0
Total	8	100.0	100.0	

Q7 Which Care Transition Model Using

	Frequency	Percent	Valid Percent	Cumulative Percent
	3	37.5	37.5	37.5
Valid CTI	2	25.0	25.0	62.5
BOOST	3	37.5	37.5	100.0
Total	8	100.0	100.0	

Q8 Reduction in 30-Day Readmissions- Using Care Transition

	Frequency	Percent	Valid Percent	Cumulative Percent
	1	12.5	12.5	12.5
Valid Yes	4	50.0	50.0	62.5
No	1	12.5	12.5	75.0
Not Sure	2	25.0	25.0	100.0
Total	8	100.0	100.0	

Q9 Did Care Transition Model Contribute

	Frequency	Percent	Valid Percent	Cumulative Percent
	1	12.5	12.5	12.5
Valid Yes	2	25.0	25.0	37.5
No	3	37.5	37.5	75.0
Not Sure	2	25.0	25.0	100.0
Total	8	100.0	100.0	

Q10 Improvement on Care Transition Model in Use

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	5	62.5	62.5	62.5
No	3	37.5	37.5	100.0
Total	8	100.0	100.0	

Q11 Extend Time Patient Followed Post Discharge

	Frequency	Percent	Valid Percent	Cumulative Percent
No	2	25.0	25.0	25.0
Valid Yes	6	75.0	75.0	100.0
Total	8	100.0	100.0	

Q11 Start Discharge Planning Sooner

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q11 Better Coordination of Hospital Service Providers

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q11 Better Coordination of Primary Care and Other Providers

	Frequency	Percent	Valid Percent	Cumulative Percent
No	5	62.5	62.5	62.5
Valid Yes	3	37.5	37.5	100.0
Total	8	100.0	100.0	

Q11 Better Coordination with Home and Community Services

	Frequency	Percent	Valid Percent	Cumulative Percent
No	7	87.5	87.5	87.5
Valid Yes	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q11 None of the Above

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	8	100.0	100.0	100.0

Q13 No Care Transition in Place - Why

	Frequency	Percent
Missing System	8	100.0

Q14 30-Day Readmission Rates Improved if Using a Model

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NA	7	87.5	87.5	87.5
Valid NA	1	12.5	12.5	100.0
Total	8	100.0	100.0	

Q15 How Long at Present Institution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 11-20 Years	2	25.0	25.0	25.0
Valid 21 + years	6	75.0	75.0	100.0
Total	8	100.0	100.0	

Q16 Participate in Short Interview

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	3	37.5	37.5	37.5
Valid No	5	62.5	62.5	100.0
Total	8	100.0	100.0	

Q17 Contact Number _No frequency available

