POPULATION HEALTH APPROACH AT THE CHILDREN’S INSTITUTE: A
CASE STUDY

by

Danielle Cerep

B. S., Exercise Science, University of Pittsburgh, 2015

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ABSTRACT

The terms population health and public health are typically used interchangeably. While the terms are very similar, they have slight differences. The two terminologies both focus on the general concept of making a set group of people healthy. The differences are in how the groups of individuals are defined. Though different, population health and public health overlap in the process of making people healthier.

Over the past several decades, population health has become a focus of the healthcare community. With the recent implementation of the Affordable Care Act of 2010, there has been an emphasis in shifting towards population-based services. The Triple Aim specifically outlines three key areas of focus for healthcare organizations: increasing the health of a population, increasing the experience of care, and decreasing the per capita cost. With this push to deliver affordable and high quality care, The Children’s Institute has implemented a few initiatives. These initiatives focus on increasing the health of the population it serves, decreasing costs and increasing the level of care. The Children’s Institute has focused on the public health of children with complex medical conditions. This focus shows the public health relevance of this essay. So, their population can be defined as children with complex medical conditions around the world. Their goal is to help this subset of the public through interventions at their organization that focus on population health.
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PREFACE

The topic of this essay was developed through my experiences as an administrative resident at The Children’s Institute. The residency was developed to expose students to the recently evolving concept of population health. I was involved in many projects centering on population health within the organization. Through my time spent at the organization, I was able to learn best practices, evaluation of programs and the direction of the market in value-based care.

I would like to acknowledge my two essay advisors, Samuel Friede, and Dr. Carma Sprowls-Repcheck. Through their guidance of developing my essay, insight into professional expertise, and guidance in my professional experience, I have been able to develop a deep understanding of population health initiatives in Western Pennsylvania.
1.0 INTRODUCTION

The United States has been seeing poor population health outcomes compared to other advanced countries. There is a rise in healthcare costs, access issues, persisting healthcare disparities, and the prevalence of chronic disease. Nearly one-half of Americans report at least one lifestyle-related chronic disease. Chronic diseases account for 84% of healthcare costs. Despite the high level of spending on healthcare, the overall clinical outcomes are poor. Outcomes are improved through population health management. Over the past several decades the concept of population health has become a focus of the healthcare environment. This includes payers, providers, policy makers and researchers. It is recognized that the traditional role of healthcare and typical encounter-based care for traditional services, only accounts for 20% of the population’s health. Healthcare organizations must expand in vision, practice, and reach to affect health through population health interventions. The American Hospital Association Committee on Performance Improvement’s inaugural report, Hospitals and Care Systems of the Future, prioritizes population health strategies as a must-do strategy for hospitals and health systems to succeed in the evolving healthcare environment.

There are 4 key principles for population health management. They are population-based care, data-driven care, evidence-based care, and care management. Population-based care focuses on caring for the whole population being served, not just individuals currently seeking care. Population is defined differently depending on the organization. Typically, it is the number
of people within a defined distance from a facility. Data-driven care is utilizing data analytics to make informed decisions to serve the populations with the most need. Evidence base care is making use of the best available evidence to guide treatment and care delivery. Care management is used to engage individuals through actionable management for the population being served.\textsuperscript{13} If these overarching key principles are met it can lead to a successful population health program.

\subsection{1.1 POPULATION HEALTH FOR HEALTHCARE ORGANIZATIONS}

The Affordable Care Act of 2010 and other healthcare reform initiatives have shown a bright light on efforts to provide accountable and population-based health services.\textsuperscript{8} These initiatives have catalyzed interest in the concept of population health.\textsuperscript{12} The ACA drives hospitals towards population health by incentivizing and promoting: prevention, care coordination strategies, and quality and safety.\textsuperscript{11} These policy and financial shifts have driven an increase in the priority for population health management.

The Institute for Healthcare Improvement developed a strategy called the Triple Aim (Figure 1). Under this initiative its goals are to decrease cost, improve the health of the population, and increasing quality and satisfaction. The Triple Aim is used to efficiently optimize healthcare performance.\textsuperscript{9}
In 2015 CMS reported the nation’s healthcare expenditure had reached 17.8% of the U. S’s GDP. The Triple Aim was formed because the U. S’s GDP spent on healthcare was estimated by the Centers for Medicare and Medicaid Services to grow to nearly 20% and the concern for quality care. All three of the components in the Triple Aim need to be addressed at the same time to achieve the desired outcome.  

Hospital size determines the shift from managing individuals to managing entire populations. A recent American Hospital Association survey of chief executive officer showed that larger facilities were more likely to focus on population health management than leaders of smaller facilities as a necessary strategy. Smaller more rural hospitals and critical access hospitals typically will not have the financial resources or human capital to implement population health initiatives. The larger the patient base, the greater the push to examine solutions for caring for the patient. 75% of CEOs recognized the value of exploring population
health initiatives, even at smaller organizations. Leaders recognize that it is not a matter of if they must pursue the strategies but when.

Collaborations may be a helpful way to achieve goals such as improving quality and patient safety, increasing care coordination, and expanding preventative services. There is not an ideal number of partnerships, but a higher number would indicate systems are linking with a wider range of resources and will be able to address a wider range of social determinants. A survey was done on executive management at healthcare organizations across the U.S about what they think will help them to improve population health. While most agree that reaching out to work with other clinical providers and physicians, a majority feel it is necessary to go beyond the traditional partnerships and explore new relationships they cannot accomplish on their own. Some examples of these are governments and public health agencies.

Hospitals and health systems have started to realize the mechanisms used to advance population health, improving quality and patient safety, expanding preventative services, and increasing care coordination- support their current strategic initiatives. Because of the limited reimbursement systems currently in place for population health, healthcare organizations may find it difficult to identify which population health factors they can directly impact with their limited resources. This constraint on the reimbursement will force health systems to prioritize which population health initiatives they wish to pursue. Although financial incentives are not truly aligned yet, the efforts that healthcare organizations can take to improve care delivery in the current volume-based market will be important in aligning themselves for the future value-based reimbursement system. The Centers for Medicare and Medicaid Services announced that one half of Medicare spending outside of managed care will be paid for via value-based models by
2018. With the current change in the political environment, this may affect healthcare policy. It is still to be determined how value based reimbursement will be affected.

1.2 ORGANIZATIONAL CONTEXT

The Children’s Institute is an independent non-profit organization. The organization was founded in 1902 and is dedicated to improving the quality of life for children, young people and their families by providing a specialized continuum of services that enables them to reach their full potential. There are 3 main components to the organization: Project Star, Rehabilitation Hospital, and the Day School. They are the only CARF accredited freestanding pediatric specialty rehabilitation hospital in Western Pennsylvania. The Children’s Institute’s Vision is:

The Children's Institute of Pittsburgh will be a nationally and internationally recognized leader in the provision of family-centered care and coordination of services for children and youth with special needs and for any child needing rehabilitation services. The hallmark of The Children’s Institute’s legacy will continue to be an unwavering commitment to these children and their families. Their values are compassion, integrity, excellence, innovation, teamwork and collaboration, and fun. Together these values shape the strategic mission of the organization
2.0 CARE COORDINATION

“Care Coordination is defined by the American Academy of Pediatrics as “a process that links children and youth with special health care needs and their families with appropriate services and resources in a coordinated effort to achieve good health.” Children with special healthcare needs represent 15 to 20% of all children in the United States. Existing data supports the benefit of care coordination for children with complex illnesses.

2.1 PRECEDE-PROCEED MODEL FOR PROGRAM DESIGN

The Precede-Proceed Model was used in developing The Children’s Institute’s care coordination program framework. The Precede- Proceed model is a cost–benefit evaluation framework proposed in 1974 by Dr. Lawrence W. Green, that can help health program planners, policy makers, and other evaluators analyze situations and design health programs efficiently. It provides a template for the process of conceiving, planning, implementing, and evaluating a health intervention. It was originally developed for use in developing public health programs. It has two main parts to the structure, the precede stage and proceed stage each encompasses four phases in each stage. The Precede stage is used to specify measurable objectives and baselines. The Proceed stage encompasses monitoring and continuous quality improvement.
2.2 CARE COORDINATION STRUCTURE

The Care Coordination structure was developed before implementation. Originally the organization of the program encompassed a medical director, information systems technical support, an administrative assistant, referral liaison, care coordinators, health coaches, an outcomes analyst, and social worker based on a business plan projection. The business plan projection is featured in **Figure 2**. The enrollment of the program did not meet expectations so the structure of the program was adjusted. There was never a referral liaison and outcomes analyst hired. The number of FTE’s projected originally was not available upon request from the organization, so there is no way to show the change in FTE employees from the planning phase of the program to implementation.

**Business Plan Anticipated Enrollment**

- **Year 1: FY 2014**
  - Review The Children’s Institute targeted patient population for program
  - Enroll 200 patients in program

- **Year 2: FY 2015**
  - Target patients inside/outside of TCI patient population
  - Build relationships with physicians and other health care providers caring for children with medical complexities
  - Enroll 600 patients in program

- **Year 3: FY 2016**
  - Target patients inside/outside TCI patient population
  - Build relationships with physicians and other health care providers
  - Negotiate contracts with health plans
  - Enroll 3,000 patients in program

*Source: The Children’s Institute Analysis of the Process of Developing and Implementing the CI Care Coordination Program*

**Figure 2: Business Plan Anticipated Enrollment**

7
Information Systems selection was a key component in outlining the structure of the Care Coordination Program. Originally from the fall of 2013 to spring of 2014 outside vendors were looked at in selecting a program that would work with the detailed outline of the program. However, after months of analysis the systems seemed cost prohibitive, not timely and fragmented. There was then a push to modify the structure of Sorian the EMR system at The Children’s Institute. Analytics were embedded in the systems to allow for outcome measurements. There were three initial templates embedded into Sorian: The Health Coach Tool, Tier Review Assessment, and a Measurement Tool. The Tier Review Assessment tool had three possible tiers. The tools had both drop down boxes as well as rating scales that were displayed in a numeric value. The author requested the final enrollment of the program but there were no numbers provided.

The Health Coach Tool measured trips to the ER, days of work missed, days of school missed, missed appointments and readmissions. The Measurement tool measures relevant data to monitor and provision of care including frequency and time. This tool focused on the encounter, care coordination activity, method of communication, tasks complete and outcomes. The data was analyzed to determine ongoing need for services. The Tier Review Assessment was used to determine the medical and psychosocial acuity of patients and their families. An example of this tool can be shown in Appendix A.

2.3 OUTCOMES ANALYSIS

When analyzing the data from the Care Coordination Program, a coordination management tool was not used. This tool was not used because the variables being used were
unable to be pulled from Sorian in a numeric value to analyze. The variables for the outcomes review were the number of ER visits, missed school days, missed appointments, missed work days, and the number of hospital admissions. Data was collected from January 1st of 2015 to May 16th 2016.

There were three variables that were unable to be analyzed due to missing information. They were missed work days for parents, missed medical appointments, and the number of hospital admissions. 93% of the clients did not have documentation on missed work days. 6 clients showed that there was a total of 9 missed work days. There were 45 clients out of 83 clients pulled from Sorian that did not have documentation of the number of missed medical appointments. The remaining 38 clients that had documentation of the number of missed medical appointments showed a total of 80 missed appointments in the given time period. This variable is unable to be analyzed because the total number of appointments made was not recorded. 63 clients out of 83 did not have documentation related to the number of hospital admissions. Of the 20 remaining clients, there were 17 documented hospitalizations. A chart review completed by the Care Coordination staff showed that 10 out of 21 admissions were unplanned admissions for Tier 4 clients. This data was unable to be analyzed because the length of the clients stay was not reported.

There were 350 unique identifiers when analyzing the data on emergency room visits. When evaluating the emergency room visits, it was assumed that no documentation meant there was no emergency room visit. 86.3% of individuals in the program were ruled to have no emergency room visits. This is compared to the state data benchmark of 59.5% of individuals had no emergency room visits from the Data Resource Center for Child and Adolescent Health reported in 2009-2010. 13.7% of patients were shown to have had 1 emergency room visit, as
compared to the PA benchmark of 20.3%. 2.3% of participants showed 2 or more emergency room visits as compared to 202.2% for the state average. The details of the emergency room visit outcomes are displayed in Table 1. The Care Coordination program showed that more patients avoided emergency room visits than the benchmark set by Pennsylvania.

Table 1: Care Coordination: Number of Emergency Room Visits

<table>
<thead>
<tr>
<th>Number of Emergency Room Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>350 unique identifiers assigned during this time period, all of whom had the potential for ER visits</td>
</tr>
</tbody>
</table>

Table 1: Care Coordination: Number of Emergency Room Visits

<table>
<thead>
<tr>
<th>No ER visits</th>
<th>1 ER Visit</th>
<th>2+ ER visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>302/350 = 86.3%</td>
<td>48/350 = 13.7%</td>
<td>8/350 = 2.3%</td>
</tr>
</tbody>
</table>

PA State Average = 59.5%  PA State Average = 20.3%  PA State Average = 20.2%

Source: The Children’s Institute Analysis of the Process of Developing and Implementing the CI Care Coordination Program

After a file review of clients, the Health Coaches reported that there were 170 clients that were school age out of the 235 clients that were enrolled at the time of the data collection from January 1, 2015 to May 16, 2016. However, 83 records were retrieved from SOARIAN and 24
clients out of the 83 had documentation related to the number of missed school days. This is about 14% of the 170 clients that are reported to be school age at the time of data collection. This data was compared to PA state data which documented the number of students with special health care needs that missed 11 or more days of school. 7 clients out of 24 had documentation reporting that they missed 11 or more days of school, which is about 29%. The staff in Care Coordination also contacted the school for 42 clients to retrieve a more accurate number of missed school days. 23 clients out of the 42 contacted missed 11 or more days of school, which is about 55% of the clients surveyed. Based on data collected through SORIAN and when contacting schools via telephone, the number of missed school days is higher than the PA state average in 2013 for children with special health care needs that missed 11 or more days of school. The PA state percentage was 13%. (Figure 3) The Children’s Institute’s data for the number of missed school days accounted for missed school because of transportation, illness, appointments, etc. and the PA state data only indicates students with SHCN that missed school due to illness, thus, the comparison to a state benchmark is not able to be compared accurately.
For tier comparisons, The Tier Review Assessment tool in Sorian was used for this comparison. Additionally, the Case Review meeting document from the Minnesota Department of Health was used to determine three things: the tier level, the frequency of contact with the family, and the frequency of when case review meetings needed to occur. For the tier comparison, 237 clients were pulled from SOARIAN. 27 clients out of 237 had incomplete documentation. The reason for missing documentation can be assumed to be because the client

Source: The Children's Institute Analysis of the Process of Developing and Implementing the CI Care Coordination Program

Figure 3: Care Coordination Missed School Days
may not have required a tier review assessment to be completed within the given time span. Therefore, 210 clients were used for the tier comparison data analysis. (Figure 4)

Tier levels for clients are determined by the number of psychosocial and medical risk factors. Examples of psychosocial risk factors are parental conflict or custody disputes, education barriers, housing issues, or involvement with Child Protective services in the last 6 months, limited social and community supports, financial stressors, significant mental health or medical needs of the patient or family, limited medical insurance coverage and an active or history of substance use in the home within the last year. There are a total of 10 items that are assessed. Examples of medical risk factors include current or recent inpatient admission, barriers in obtaining medical devices and medications, non-adherence with medical plan of care, or identified safety/risk behaviors. There are a total of 9 other medical risk factors that are assessed. Other medical risk factors include barriers in obtaining needed supports because of payer issues, increased medical acuity or poor prognosis for the patient, educational needs around medications, diagnosis, prognosis, barriers with ADLS, or a Braden Score of <13. The number of psychosocial and medical risk factors are compiled and based the total number of risk factors is then assigned a tier level. (Figure 4)
The tier level for the client also determines the frequency of contact to the client/family and the frequency in which case review meetings need to occur. For example, at the highest tier, Tier 4, the frequency of contact with the client/family is weekly/every other week and the case review meeting is required to occur monthly. At the lowest tier, Tier 1, the frequency of contact with the client/family is at the maintenance level and the case review meeting must occur biennially.

After analyzing medical risk factors, 42% of clients decreased their medical risk factors, 38% of clients stayed the same with the number of medical risk factors that were present, and 15% of clients increased their medical risk factors. (Figure 5) For the psychosocial factors
analysis, 61% of clients decreased their psychosocial risk factors, 28% of clients stayed the same with the number of psychosocial risk factors that were present and 8% of clients increased their number of psychosocial risk factors. (Figure 6)

![Table: Care Coordination Medical Risk Factors](source)

<table>
<thead>
<tr>
<th>Number of clients</th>
<th>Total number of clients</th>
<th>Medical Risk Factors (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>89 clients</td>
<td>210</td>
<td>42% decreased medical risk factors</td>
</tr>
<tr>
<td>80 clients</td>
<td>210</td>
<td>38% stayed the same medical risk factors</td>
</tr>
<tr>
<td>32 clients</td>
<td>210</td>
<td>15% increased medical risk factors</td>
</tr>
</tbody>
</table>

Source: *The Children’s Institute Analysis of the Process of Developing and Implementing the CI Care Coordination Program*

**Figure 5: Care Coordination Medical Risk Factors**

![Table: Care Coordination Psychological Risk Factors](source)

<table>
<thead>
<tr>
<th>Number of clients</th>
<th>Total number of clients</th>
<th>Psychosocial Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>129 clients</td>
<td>210 clients</td>
<td>61% decreased psychosocial risk factors</td>
</tr>
<tr>
<td>59 clients</td>
<td>210 clients</td>
<td>28% stayed the same psychosocial risk factors</td>
</tr>
<tr>
<td>17 clients</td>
<td>210 clients</td>
<td>8% increased psychosocial risk factors</td>
</tr>
</tbody>
</table>

Source: *The Children’s Institute Analysis of the Process of Developing and Implementing the CI Care Coordination Program*

**Figure 6: Care Coordination Psychological Risk Factors**
There was a patient family centered care family survey done. 127 people were eligible to complete the telephone survey. 63 responded which gave a response rate of 50%. 16% were Tier 4, 40% were Tier 3, 22% were Tier 2, and 22% were Tier 1. The results from the surveys can be found in Appendix B. Overall, 67% of clients/families were very satisfied with the overall level of care provided from the staff in the Care Coordination program.
3.0 HEALTH LITERACY

According to the Health Advisory Board overcoming non-clinical barriers such as health literacy and initiating patient engagement is successful in improving the health of our population.\(^6\) By definition, health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.\(^7\) Low health literacy results in a threat to patient safety, repeated hospital admissions, poor clinical outcomes, and excessive cost.\(^14\) Only 12% of adults are considered proficient in health literacy.\(^1\) In order to meet the needs of the medically complex and predominantly high risk populations that The Children's Institute serves, The Children’s Institute needs to have the right documents in place in order to effectively communicate with parents.

3.1 DOCUMENT ANALYSIS

With the push towards a population based approach to healthcare within The Children’s Institute, literature reviews were done in the field of health literacy. Since research has shown a positive impact in the improving readability of documents, there was an analysis done on 3 documents throughout the organization. These documents were the Prader-Willi Handbook, Prader-Willi Additional Information and Neonatal Abstinence Syndrome Behavioral Contract.
Upon further analysis of this document, all three documents did not meet all 4 criteria. The four criteria were words per sentence, sentences per paragraph, Flesh-Readability Ease, and Flesh-Kincaid Grade Level. (Figure 7) This analysis determined that restructuring of documents needs to be done to have optimal readability and increase Health Literacy in the Children’s Institute’s population. After analysis of these documents there was an initiative started in the organization to review health literacy of all documents in The Children’s Institute. This further project on Health Literacy is currently being established. The author concurs with The Children’s Institute’s recommendations.

<table>
<thead>
<tr>
<th></th>
<th>Optimum Readability</th>
<th>PW/Handbook</th>
<th>Additional PW Information</th>
<th>Behavioral Contract (NAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words per sentence</td>
<td>&lt;10</td>
<td>16.1</td>
<td>23.7</td>
<td>17.2</td>
</tr>
<tr>
<td>Sentences per paragraph</td>
<td>&lt;5</td>
<td>3.3</td>
<td>3.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Flesch-Readability Ease</td>
<td>60-70%</td>
<td>39%</td>
<td>43%</td>
<td>53.7%</td>
</tr>
<tr>
<td>Flesch-Kincaid Grade Level</td>
<td>6</td>
<td>12.1</td>
<td>3.1</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: The Children’s Institute Analysis of Health Literacy done by Krystal Coleman

Figure 7: Health Literacy Document Analysis
4.0  RECOMMENDATIONS FOR IMPROVEMENT

Through analyzing the population health based initiatives at The Children’s Institute, there are a few calls to action that can be done to improve their programs. Metrics need to be identified and tracked through the entire continuum of a program. Effectively tracking data will allow for better reliability on the analysis of a program. Specifically, in the Care Coordination program, the ER visits were assumed to be no visits when there was no documentation. It would be more reliable moving forward to have a set policy for documenting if the ER question was asked in the interview. Before and after comparisons to track changes could also be effective with the Care Coordination program. Since there was no before data set, it made it hard to track how much change was made after the program was implemented. The author would recommend gathering data before a program is implemented at The Children’s Institute, as well as set policies for consistence data collection. Both changes will allow for consistent, reliable and useful data analysis.

Continued expansion of partnerships outside of The Children’s Institute will allow for a more comprehensive continuum of care. Leveraging these partnerships will allow the population to be better served in one continuum. Partnerships with the government are a movement in the right direction of expanding the reach beyond the walls of the organization.
Further analysis of health literacy level of documents needs to be done to effectively fix the health literacy gap in the organization. Documents should be analyzed using consistent measures to have the ability to compare internally and to external organizations.

A cost-effective analysis should be done on the care coordination program. This should include using consistent cost effective analysis research methodology. The cost-effective analysis should be used to evaluate the sustainability of the program past it’s pilot phase. The author was unable to get cost effective analysis data which would have been helpful at evaluating the effectiveness of the program in this analysis.

Effective business plans are another area for improvement. There estimates for FTE’s did not reach projections due to the volume projections being off by a lot. Because the cost estimate was not done from the start for employees, the number of FTE’s was less than projected. Overall a more detailed business plan process may help for planning a new program at The Children’s Institute.

Health Literacy is an important aspect to consider when communicating with the patient and their family. Besides working on the proper health literacy for the paper documents, there should also be a focus on health literacy through verbal communication. Patients do not always understand everything they are told. There should be training with staff and physicians on the proper techniques to communicate with patients. This can be done through a module or an in-person training.
5.0 CONCLUSION

With the shift towards population health management from a fee-for-service environment, The Children’s Institute is heading in the right direction to care for its population. The Children’s Institute is unique in the sense that it cares for many medically complex children. Since this is an even more vulnerable population, it is important to continuously try to improve the quality of care. Several clinically based population health interventions already exist, but The Children’s Institute should continuously push the boundaries of care through testing the effectiveness of new programs.
# Case Review Meeting

**Patient:**
- Name, Age, Diagnosis
- Brief Overview of Presenting Medical Complexity
- An update to the team on current collaboration with medical providers
- POC goals / Interventions

**Care Coordinator will update Plan of Care**

**Health Coach:**
- Family participation and engagement
- Current stressors/needs, and supportive interventions
- Current risk factors to determine possible change in tier level.

**Health Coach will complete Scoring Tier Review Assessment**

**Social Worker (as applicable):**
- Review of current support resources already in place
- Current referrals for additional resources
- An update on current collaboration with providers.

## Psychosocial Risk Factors

- Parental Conflict and/or custody disputes
- Limited social and community supports
- Transportation Barriers re: adherence to med/therapy appointments due to lack of established resources.
- Education Barriers: concerns with IEP, 504, medication needs at school, special transportation needs due to disability
- Housing Issues: needs for accessible housing, home modifications.
- Financial Stressors: due to insufficient community resources
- Significant Family/Patient mental health and/or medical needs that have been reported by the family and have a negative impact on overall function.
- Limited medical insurance coverage for patient and/or family members
- Recent or current involvement with Child Protective services within the last 6 months
- Active or history of substance use in home within the last year

## Medical Risk Factors

- Barriers in maintaining medical & therapy services due to service provider or payer issues: home based health services, outpatient services, insurance
- Current or recent Inpatient Admission (within last 30 days)
- Increased medical acuity and/or poor prognosis for the patient. (Need for Specialist Referral or additional resources)
- Barriers in obtaining medical devices or medications
- Identified patient/family non-adherence with medical plan of care (missed appointments, medications, etc.)
- Identified Educational Needs regarding medications, diagnosis, prognosis etc.
- Identified safety risks/Behaviors (climbing, bolting, falls, environmental concerns).
- Barriers with ADLs (need for adaptive equipment, DME)
- Braden Score < 13

<table>
<thead>
<tr>
<th>Tier Level</th>
<th>Indicators</th>
<th>Frequency of Contact</th>
<th>Frequency of Case Review Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 or more psychosocial OR medical risk factors</td>
<td>Weekly/every other week</td>
<td>Monthly</td>
</tr>
<tr>
<td>2</td>
<td>2 psychosocial or medical risk factors</td>
<td>Monthly</td>
<td>Every other month</td>
</tr>
<tr>
<td>3</td>
<td>1 psychosocial OR medical risk factor</td>
<td>Quarterly</td>
<td>Quarterly</td>
</tr>
<tr>
<td>4</td>
<td>0 psychosocial OR medical risk factors</td>
<td>Maintenance</td>
<td>Bi-Annually</td>
</tr>
</tbody>
</table>

Revised 3.24.15

- Administrative Assistant Informed of Tier
APPENDIX B: CARE COORDINATION SURVEY RESULTS


