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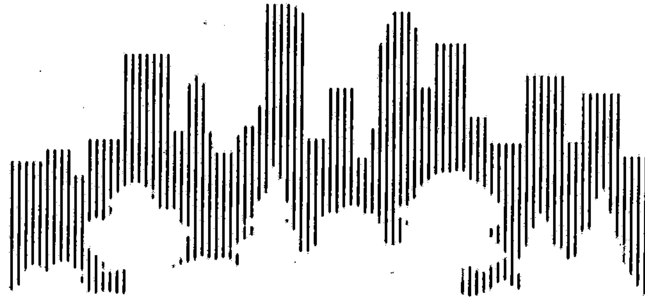

C•O•L•L•E•G•E

MASTER OF ARTS IN LEADERSHIP

Linda Bauermeister

Key Curriculum Elements for Developing World-Class Patient Centered Care Teams

2009

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Key Curriculum Elements for Developing World-Class Patient Centered Care Teams

Linda Bauermeister

Leadership Application Project
Professor Hanson
June 2, 2009

MASTER OF ARTS IN LEADERSHIP
AUGSBURG COLLEGE
MINNEAPOLIS, MINNESOTA

CERTIFICATE OF APPROVAL

This is to certify that the Leadership Application Project of

Linda Marilyn Bauermeister

has been approved by the Review Committee for the Leadership Application Project requirement for the Master of Arts in Leadership degree

Date of Oral Defense: June 2, 2009

Committee:

Adviser

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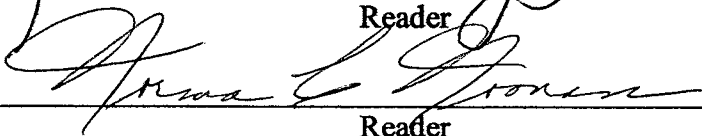

Reader

Dedication Page

This final project is dedicated to the following people who were an active part of paving the way towards a vision of world class patient centered teams at Park Nicollet:

David Wessner, CEO: Thank you for this life changing experience as a Leadership Fellow. Our travel to various national and international locations and subsequent learning has made me a better observer, a better thinker, and a better leader.

The other members of the Leadership Fellows Group: Beth Hartquist, Bill Kenney, Barb Benjamin, Gary Larson, Mike Kaupa, Joan Sandstrom, David Homans, Jennifer Nelson, and Ted Wegleitner: Each of you has brought a unique perspective in our journey of developing world class patient centered team characteristics. Your wisdom, passion, and vision have been reflected and further refined in the content of this work.

Bill Sandras, Consultant: Thank you for your leadership and guidance in the initial efforts of this project. I learned a lot from you around idea generation and idea development that I have used and will continue to use in my career.

Acknowledgements

There are two people that I would like to acknowledge:

My husband, Duane Bauermeister: I could not have been able to complete this project, including all of the travel, without your support, love, feedback, constructive discussions, and gentle nudging along the way.

My advisor, Dan Hanson: I have learned a lot from you in regards to making work meaningful, and your messages have been intertwined in my story. I hope others will take heart in what you have to say and incorporate it into their own work in leading others.

ABSTRACT

KEY CURRICULUM ELEMENTS FOR DEVELOPING WORLD-CLASS PATIENT CENTERED TEAMS

LINDA MARILYN BAUERMEISTER

June 2, 2009

_____ Thesis

__X_ Leadership Application Project

_____ Non-thesis (ML597) Project

Abstract

According to the National Coalition on Health Care (2007), the health care industry is in a state of crisis. It is not as safe as it could be, it is not affordable for many people, and it is full of waste. There seems to be a consensus that reform is needed. One option for transforming health care is to focus on and develop the small units of people who actually do the work (Quinn, 1992 and Nelson et al, 2007). This Leadership Application Project addresses the question: what are the key curriculum elements needed to transform, develop, and sustain a group of people into a world-class patient centered team? To address this question, data were gathered from brainstorming sessions and direct observation of world-class teams in their natural setting. Data display and reduction were achieved by using four management tools. Following data reduction, all key elements were arranged into six team developmental modules.

Table of Contents

Certificate of Approval....p. ii

Dedication Page....p. iii

Acknowledgements....p. iv

Abstract....p. v

Table of Contents....p. vi

List of Tables....p. vii

List of Figures....p. viii

Chapter 1: Introduction....p. 1

Chapter 2: Literature Review....p. 7

Chapter 3: Methodology: Plan of Execution....p. 19

Chapter 4: Findings....p. 27

Chapter 5: Identifying the Key Curriculum Elements....p. 76

Chapter 6: Recommendations and Next Steps....p. 89

References:....p. 94

Appendices:....p. A-1

List of Tables

Table 1: Renamed Patient Centered Team Characteristics.................................. p. 59

Table 2: Interrelationship Diagraph Ins and Outs Chart.....................................p. 66

List of Figures

Figure 1: World-Class PCT Characteristics .... p. 61-62

Figure 2: Interrelationship Diagraph for "Effective Local Leadership" ....p. 64

Figure 3: Interrelationship Diagraph for "Highly Satisfied Patients"....................p. 65

Figure 4: Sample Tree Diagram...p. 68

Figure 5: Tree Diagram: Effective Local Leadership....................................p. 69

Figure 6: Tree Diagram: Systematic and Deliberate Planning and Goal Setting..... p. 70

Figure 7: Tree Diagram: Demonstrated Competence in the use of Lean Principles.. p. 71

Figure 8: Tree Diagram: The Disciplined Practice of Visual Daily Management.... p. 72

Figure 9: Tree Diagram: Effective Use of Tools and Systems........................ p. 73

Figure 10: Tree Diagram: The Use of Data to Improve Outcomes.......................p. 74

Figure 11: Tree Diagram: Cultivated Team Excellence................................... p. 75

List of Appendices

Appendix 1: Key Learning from Travel..A-1-10

Appendix 2: Brainstorming and Sorting List A-11

Appendix 3: Team Developmental Modules with Associated Key Curriculum Elements..A-17-20

Introduction

Health care in the United States is in a state of crisis. According to the National Coalition on Health Care, it is a massive system marked by "inefficiencies, excessive administrative expenses, inflated prices, poor management, inappropriate care, waste, and fraud" (National Coalition on Health Care, 2007). In addition to high costs, health care is not as safe as it could be. Studies reviewed by the Institute of Medicine reveal that as many as 98,000 people die each year in U.S hospitals from medical errors. Other patients leave hospitals with retained surgical instruments, post-operative infections, or fail to receive recommended care for their specific condition. These errors are not due to non-caring professionals, rather they are a result of what some critics and leaders in health care call a "broken system" (Institute of Medicine, 1999). This diagnosis of a "broken system" has sparked the interest of many individuals, groups, payors, and the government who are all interested in "fixing" or even transforming health care. Examples here in Minnesota include Dr. Denis Cortese, the head of the Mayo Clinic. He advocates a total re-design in the way that care is delivered and paid for by insurance companies (Cortese, 2008). Grass roots "think tanks" have been held all over the state in response to President Barack Obama's request for ideas on changes for health care. One working session held in Brooklyn Park, Minnesota identified affordability and transparency of medical costs as key issues that should be addressed (Adams, 2009). Tony Miller, one of the creators of Carol the Care Marketplace, believes that health care can be transformed by creating a true marketplace for health care services. Consumers can shop for their care based on what is important to them, and providers will compete for their business (Carol. The Care Marketplace, 2009). This in turn will change the way that people use health care and providers will need to be more innovative, not only in services offered, but also in the pricing of those services.

Marketplace, 2009). This in turn will change the way that people use health care and providers will need to be more innovative, not only in services offered, but also in the pricing of those services.

The message from these examples is that health care needs attention and that groups such as employers, payors, or the government are ready to work or already working towards reform. Of these three options, it is the people inside individual organizations who can best make the transformation in *how* care is delivered to the patient at the bedside or in the exam room. They are the best group to do this transformation as they know their existing processes; they know where they purposefully deviate from them due to barriers and where ambiguities exist (Spear, 2005). Most importantly, they have the ability and capacity to learn how to improve their processes if they are given support from inside their organization (Black, 1998, p. 5). This will be difficult, but the organizations that can radically fix the way care is delivered will have the competitive advantage in the future (Park Nicollet Strategic Plan, 2007).

So, how do health care organizations make the necessary radical changes to transform the health care industry? Addressing this question may require a look outside of health care or outside the country to learn from others who have dramatically altered their businesses. Companies such as Nordstrom, Boeing, FedEx, McDonalds, Toyota, and Apple are considered among the world's best in the areas of product quality, cost, and customer service (Quinn, 1992). Jönköping County, Sweden is considered the "Toyota" of health care due to its ability to deliver high quality, cost effective care to all 300,000 inhabitants just like Toyota has done producing high quality, affordable cars for all interested buyers (Institute for Healthcare Improvement, 2007). How did these organizations get to their present performance levels? Based on research, the common thread of these organizations is that they have broken their organization into mini

organizations, or the smallest activity or cost units in their business and improvement plans (Quinn, 1992). Specifically, they focus their time and attention creating and developing the teams or small groups of people who have contact with the customer or patient day after day. They give the work back to the people doing the work and support these teams with the necessary tools that they need to become high performing teams. In doing so, these organizations ensure that team members are competent in their roles, they empower the team to do what is right for the customer, and they create an environment that motivates the team to deliver the service or care in the most effective form for that customer or patient (Quinn, 1992).

Park Nicollet Health Services (PN), an integrated delivery network in St. Louis Park, Minnesota, has chosen to develop and transform small units of people into "world-class patient centered teams" as part of their key strategies (Park Nicollet Strategic Plan, 2008.) It is believed that by developing teams, each group of people will understand their current performance, have a desire to improve where needed, and will own the results of their work. This will lead to a greater ability to provide personalized, high quality cost effective care (Park Nicollet Strategic Plan, 2008.)

Developing world-class patient centered teams at PN will be a multi-year process, starting with several pilot care teams in order to test the concept. During this pilot, a team will be formally identified, leaders will be selected, and the team will select a problem that they want to address based on their current performance. Once they have completed an improvement cycle, an evaluation will be done to assess the concept and the support needed for these teams. Following the completion of this pilot phase, a plan will be developed to grow the number of PCTs at PN as well as define the expectations and competencies for PCTs (Park Nicollet

Strategic Plan, 2008.) Lastly, a plan to provide ongoing support and development of PCTs will be created to continually improve the teams.

So what exactly is a world-class patient centered team? For the purpose of this Leadership Application Project, the term "world-class patient centered team" will be defined by separating the words "world-class" and "patient centered team." The definition of "world-class" has been developed from a review and reduction of definitions to two sources, Dictionary.com and Boeing (2007), as well as additions by this author. This composite definition is:

"Being one of the best in the world in terms of the delivery and the outcome of care given to a patient."

The result of world-class status is full patient satisfaction, high quality care at the lowest cost, a safe environment, and high morale of care team members (Quinn, 1992, Boeing, 2007, and Black 1998).

The formal definition of a patient centered team (PCT) will include components of the clinical microsystem definition by Nelson, Batalden, and Godfrey (2007, p. 3) and this author's additions:

"A small front-line unit committed to working together as a team and organized around the patient to deliver comprehensive and integrated care "

Depending on the location, a PCT will consist of different roles and professions. For example, a PCT in the clinic setting may include call center agents, check-in staff, receptionists, nurses and nursing support staff, clinicians, department assistants, administration, and most importantly

patients and their families. These small front-line units will serve as building blocks to the rest of the organization; in fact, Park Nicollet will be made up of many PCTs.

In order for PCTs to become a reality at Park Nicollet, there are questions that need to be answered and these will be the focus of this project:

- What key characteristics make up a world-class PCT at Park Nicollet?
- Based on these characteristics, what key curriculum elements are required in order to transform groups of workers into world-class PCTs?
- What is required of senior management/leadership in order to provide the support required for PCTs to become successful?

A selected group of people at Park Nicollet, including this author, was identified as Leadership Fellows. Our charge was to learn about and observe actual teams working in world-class organizations. Based on these observations, our group created the basic characteristics of a world-class PCT. This paper examines this initial work, refines it, and determines key curriculum elements that are needed to develop groups of people into world-class PCTs.

The purpose of this Leadership Application Project is to:

- Develop the world-class patient centered team concept by
    - Touring and learning from world-class organizations via national and international travel, including direct observation of teams.
    - Reviewing literature on the concept of microsystems and other relevant literature.
    - Collating key themes from travel and reading.
- Identify and operationally define the characteristics of world-class patient centered teams.

This Leadership Application Project is significant because many players, including those who do not and will never deliver health care, are putting their hats into the ring and establishing and implementing their own solutions to "fix" health care. These parties and their actions include the following:

- The government is deciding what care should be delivered and what the reimbursement rates will be.
- Big businesses are establishing their own health care systems, such as retail clinics for non-acute symptoms.
- Insurance companies are dictating the type and amount of care that they will pay for as well as reward and punishment strategies to ensure quality.

Although some of these strategies may address a few of the issues, they do not focus on the people who have contact with the patient day after day. These care teams know best how to establish long lasting relationships with patients, work with patients to organize and coordinate the care that will best meet their goals and values, and to deliver that care in the most efficient way.

Literature Review

The concept of developing teams within organizations was documented in 1992 by J. Brian Quinn in his book, *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry.* Quinn noted that the world's most successful companies, those that were the fastest growing and most profitable, focused their efforts on the work of their smallest replicable units (such as an office, a store, or franchise location), or the place where customers and the organization meet. In health care, these units are called the care team, the "Medical Home," or the many smaller systems within the larger organizations that coordinate care, produce quality, safety, and cost outcomes (Nelson, Batalden, & Godfrey, 2007, Kiser, 2008).

Within these small units, successful companies capitalize on the strength of the people in the organization knowing that innovation is a team sport, not a solo sport (McNerney, 2005). "Teamwork raises everyone's game" and the strengths and weaknesses of the people on the team are the result of local conditions (McNerney, 2005, p. 350, Quinn, 1992, Buckingham, 2001). Positive local conditions described by O'Toole and Lawler in *The New American Workplace* (2006) include a supportive community, knowing your boss and coworkers, being treated as an individual (p.110), and having the ability to participate in the decisions that affect your own work (p. 48). Buckingham and Coffman (1999) write about "twelve questions that matter" in regards to local working conditions primarily focused on people and relationships. These questions measure the "most important information" needed to acquire and retain great employees. These simple questions are:

1. Do I know what is expected of me at work?
2. Do I have the materials and equipment I need to do my work right?
3. At work, do I have the opportunity to do what I do best every day?

4. In the last seven days, have I received recognition or praise for doing good work?
5. "Does my supervisor, or someone at work, seem to care about me as a person?"
6. It there someone at work who encourages my development?
7. At work, do my opinions seem to count?
8. Does the mission/purpose of my company make me feel my job is important?
9. "Are my co-workers committed to doing quality work?"
10. Do I have a best friend at work?
11. In the last six months, has someone at work talked to me about my progress?
12. This last year, have I had opportunities at work to learn and grow?

(Buckingham and Coffman, 1999, p. 28)

In essence, it's about creating an environment for "connectedness," or the emotional and intellectual connection between the worker and his/her work that allows him or her to "shine" (Senge, 2004, Hanson, 1996, Heerman, 2003). When teams of people connect, take control of their work, and understand their existing level of performance, they merge into a force that surpasses anything that group members could have produced on their own (Engleberg and Wynn, 2003). This synergy or team spirit results in unbounded possibility for extraordinary service (Engleberg and Wynn, 2003,Quinn, 1992, Nelson et al, 2007, Heerman, 2003).

Documented examples of clinical teams taking control of their work include the pre-surgery nursing unit at Pittsburgh Pennsylvania Hospital and the Intensive Care Nursery at Dartmouth-Hitchcock Medical Center. The pre-surgery nursing team used a series of improvements over time to eliminate ambiguities and work-arounds in the process of drawing pre-op blood work. This process is supposed to be done forty-two times per day and be complete prior to the patient's transfer to the operating room, but on average, seven patient's blood work

did not come back in time. This resulted in operating room delays at a cost of $300/minute. The outcome of the improvement cycles developed by the entire team included signals indicating that blood had been drawn, a designated role to do blood draws, and a room to privately and comfortably draw patient's blood. Blood draws are now completed for all forty-two patients every day in a manner that ensures that the results are available prior to surgery and in a manner that focuses on the patient (Spear, 2005).

The Intensive Care Nursery improvement team began in 1992 at Dartmouth-Hitchcock Medical Center. Starting with a vision of becoming a world-class Intensive Care Nursery (ICN), a team of seven ICN staff met weekly and identified areas of work to improve outcomes. The first area of improvement was on noise reduction in order to allow a peaceful environment for premature newborns. This was achieved by posting "quiet please" signs and decreasing the volume of equipment alarms. This successful change lead to another improvement directed at decreasing newborn's length of stay in the ICN while maintaining quality. The team identified and studied key processes associated with an increased length of stay in the ICN. These processes were discharge planning and case management, the management of apnea and discharge criteria, and infant transition to oral feedings. By understanding current process variation and the impact of this on infants and families, this team was able to work together to standardize what they do. This work resulted in specific discharge criteria that lead to annual cost savings of over 1.3 million dollars. The momentum of team improvements continued with reduction of infection rates, improved skin care, improved continuous positive airway pressure management, and involvement of the family in the care of their infants. These improvements, realized over a ten year timeframe, have resulted in transformational change in new levels of newborn survival and thrilled parents (Nelson, et al, 2007).

In addition to new levels of performance and customer satisfaction, employees involved in improving their own workplace require less supervision as employees handle entire transactions on their own (Quinn, 1992; O'Toole, 2006). What they do need is a leader or leaders who have a sense of self, as well as the ability to connect with others and inspire them in order to really "see" a problem or situation (Senge, 2004, Wheatly, 1999, McNerney, 2005). The resulting management system needed in these organizations is flatter and less bureaucratic (Quinn, 1992), but one that requires all levels of management and leadership to act in a coordinated way (Nelson et al, 2007). This coordination is achieved when boards, senior and midlevel leaders align mission, vision and values along with strategy, operations, and people. The resulting environment is a high-performing culture or what Quinn describes as an "Intelligent Enterprise," or an organization that is able to get smarter (Runy, 2007, Quinn, 1992).

In depth study of teams in varying types of workplaces has resulted in common themes and unique perspectives around the concept of an "effective team." Larson and LaFasto identified eight crucial factors of effective teams following a three-year study. Their study consisted of review and analysis of prior research on teams and teamwork, as well as interviews with leaders and members of many different kinds of teams including the McDonald's "Chicken McNuggets" product launch team, a Centers for Disease Control project team, and a Mount Everest ascent team (Ahles and Bosworth, 2004). Their eight crucial factors of team effectiveness are the following:

- A clear, elevating goal that all team members understand
- A results-driven structure
- Competent team members
- A unified commitment of all team members

- A collaborative climate
- Standards of excellence that all team members follow
- External support and recognition of the team
- Principled leadership

(Ahles and Bosworth, 2004).

Donaldson and Mohr interviewed forty-three successful clinical care teams that they call microsystems and used qualitative methods to identify specific team characteristics that result in high-quality. The results of their study suggested that there are eight dimensions associated with high quality care teams. These dimensions have similarities to Larson and LaFasto's eight crucial factors and include:

- A constancy of purpose felt by all team members
- Supportiveness of the larger organization
- Interdependency of the care team to meet patient's needs
- Role clarity and training that results in efficiency and staff satisfaction
- Workflows that integrate information and technology
- A team that is invested in continual improvement
- Ongoing measurement of outcomes
- A connection to the community in order to enhance care and delivery and extend the influence that the team has on others

(Nelson et al, 2005, p. 13-14).

Nelson, Batalden, and Godfrey used the work of Donaldson and Mohr as a basis of their 2 year study to identify success criteria of microsystems; specifically those criteria that lead to high quality and cost efficiency (Nelson et al, 2007, p. 15). Twenty different types of high

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performing clinical microsystems from North America were studied through site visits, personal interviews, direct observation, and reviews of medical record and financial information. Nine characteristics were identified from the researchers' study of twenty microsystems located in the United States and Canadian provinces. These success criteria have similarities to the eight dimensions identified by Donaldson and Mohr:

- Local leaders are identified in the microsystem that ensures constancy of purpose, the establishment of clear goals and expectations of all team members.
- The larger organization acknowledges, supports, and recognizes the work of the team.
- The team has a patient focus, knowing that the patient is the only customer.
- There is a staff focus within the team to ensure that the team hires and trains the best people. Continuing education and incentives are key drivers to maintain this focus.
- There is a high expectation within the team to do the best job possible. In order to do so, routine work includes continuing education, professional growth, and networking.
- The team uses information to connect to one another, the patients, and other teams. Team members collect information at just the right time and systems used support this work.
- There is a focus on continual improvement as the team works towards goals, collects and posts data, and makes changes based on their current performance.

- There is interdependence on all team members. The team knows, trusts, supports, and relies on each person and his/her role on the team.

(Nelson et al, 2007, p.20-23).

Druskat and Wolff's (2001) research on teams revealed that in order for teams to be effective, they must develop a "team atmosphere that will strengthen the emotional capacity of all team members and influence emotions in constructive ways" (Druskat and Wolff, 2001, p80). This requires teams to address emotional intelligence at different levels: individual, group, and outside the group. Emotional intelligence is "being aware of emotions and deliberately bringing them to the surface in order to understand how they affect teamwork" (Druskat and Wolff, 2001, p.80). To achieve high emotional intelligence, the researchers state that team members need to develop team norms that create an awareness of emotions and regulate emotions. These norms can be established by repeating small things that can lead to team habits. Examples of small things that team can do to create an awareness of emotions are: take time away from work tasks to get to know one another, ask quiet members for their opinion during team discussions, increase measureable task and project objectives and then measure and post the results, or ask customers how the team is performing (Druskat and Wolff, 2001). Things that teams can do that can lead to help regulate emotions include: set team ground rules, volunteer to help team members if needed, create fun ways to acknowledge and relieve stress, focus on problem solving vs. blaming, and provide support for other teams (Druskat and Wolff, 2001).

Norms accomplish three things: they create tools for working with emotions, they foster an affirmative environment, and they encourage proactive problem solving or that "can do" attitude (Druskat and Wolff, 2001). During the research, Druskat and Wolff found that team norms were created from a number of areas including formal team leaders, informal team

leaders, followers, through training, or from the overall organization. The result of these norms is an emotionally intelligent team that will have the ability to face any challenges that are put in front of them.

Additional research on effective teamwork was completed by Hackman (Ed., 1990). His research focused on the conditions necessary for effective teamwork. The research was completed by a group of researchers who directly observed and interviewed seven different types of task performing teams (twenty-seven in all) including top management, task forces, professional support groups, performing groups, human service teams, customer service teams, and production teams. Group effectiveness was defined using a three dimensional approach that included: "the degree to which the output of the group met customer/ patient/ client standards of quantity, quality, and timeliness; the degree to which the work enhanced cohesiveness and interdependence of team members into the future; and the degree of growth and personal development realized by team members as the work was completed" (Hackman, 1997, p. 6-7.) The conditions or process criteria that enabled group effectiveness were "sufficient effort brought forth by team members; adequate knowledge and skill to do the work; and the use of appropriate task performance strategy" (Hackman, 1990, p.9.)

The purpose of this research was to "understand each work group in its own terms" and correlate their performance within the stated dimensions of effectiveness and process criteria (Hackman, 1009, p.3.) Key to the learning was to identify features present in all groups, features unique to a particular type of task performing group, and features or factors that most powerfully shaped the development, the dynamics, and the performance of work groups (Hackman, 2007, p.2.)

All groups studied were similar in that they were real social systems and had specific tasks to perform within an organization. Five unexpected themes emerged that deserve review and understanding. These five themes were:

1. There was a time and rhythm component to the workings of all teams: Teams responded positively to limits and deadlines; organizing them to meet deadlines. Interestingly, the teams had difficulty when deadlines were fuzzy or constantly changing. Rhythm was developed via standard cycles of work. This rhythm helped determine how the group worked together.
2. Self fueling spirals were present that affected the teams: Those teams that did well, tended to have more opportunities and more successes. Those that did not do well spiraled downward unless addressed by management.
3. All groups had issues with the dynamics of authority: Managers or other authority figures had a direct impact on the work of the team and a committed and skilled manager was crucial for group success.
4. Work content affected the character of the group: The focus of the work, or what Hackman describes as the "stuff" shaped the emotions and the types of interactions that take place. This is where values were also aligned (Hackman, 1990, p. 487.)
5. Risks and opportunities were present for all groups: The risk for the human services group was the need to control the behavior of other people while at the same time, delivering care. This conflicting need was found to be very taxing. On the other hand, helping people through an illness was reported to be very rewarding (Hackman, 1990.)

The human services group of the Hackman study was of special interest to this author due to its applicability to this Leadership Application Project. The human services group was comprised of three different health care task performing groups; two located in a hospital setting, and one in a prison (Hackman, 1990.) Unique to the human services task performing group is that people, not ideas or things were processed by this group. Additionally, the product output of this group was care, so a group's effectiveness is measured by the effect or outcome of the care on the person, which can be very subjective at times. Special challenges identified for this type of task performing group was managing *intra*group relations while at the same time, ensuring that effective patient/client handoffs to other teams occur (Hackman, 1990, p.289.) Intragroup relations was identified as a challenge due to the variety of professional disciplines on the teams, and with this diversity, comes varying real or imagined status levels. For example, physicians were seen as a "higher status" than nurses due to educational preparation; regardless of the work that was being done. Additionally, the work done by human service task groups was found to be taxing on the team members' emotions. This constant level of stress leads to burnout and/or the need to objectify patients/clients in order to distance oneself from the care transactions (Hackman, 1990, p. 290.)

Five common themes come from all of the research sited above and include the following:

1. All effective teams need some sort of common goal or reason for the existence of the team. Two researchers, Nelson et al (2007) and Larson and LaFasto (Ahles and Bosworkth, 2004) included the leader or leadership as the role required to ensure that goals or a constancy of purpose is articulated and reinforced.

2. Team interdependency is a key feature to getting the work done; meet the customer's need, or a result of emotional intelligence.
3. Effective teams are results driven and have a system in place to collect performance or outcome measures.
4. Teams need organizational or external support and recognition of the work that they do.
5. Effective teams need competent team members and must have the required education and training in order to become competent.

Unique perspectives on effective teams come from the work of Druskat and Wolff (2001) and Hackman (1990) on the specific conditions that need to exist before effective teamwork can occur. Druskat and Wolff state that task processes, such as cooperation, commitment to goals, etc. can only happen after a team is aware and can regulate emotions. Hackman sites that group effort and selecting the right way of doing something as key conditions for team effectiveness.

Unlike Donaldson and Mohr and Larson and LaFasto, the other researchers give some direction on how to develop team effectiveness. Nelson et al (2007) provides direction on how to transform a group of people into a high performing clinical microsystem using an action based learning system. The Dartmouth Microsystem Improvement Curriculum is an action based learning system that is founded on the belief that care team members have two jobs: to provide care, and to improve care (Nelson, et al, 2007, p. 119.) In order to improve and maintain quality and safety, Nelson et al teach that improvement must be part of daily activities and can be done using the same care process that is used with patients: <u>assessing</u> the microsystem, <u>diagnosing</u> the problems, <u>treating</u> the microsystem, and <u>following up</u> on the process, outcomes, and results.

This cycle is repeated as needed to continually improve the performance of the team (Nelson et al, 2007, p.258)

Hackman (1990) gives suggestions on how groups and managers can take actions to address the issues that affect the conditions necessary for work teams to be effective. He advocates that it is the responsibility of leadership to assess and deal with the issues. This supports the need for knowledgeable and skilled local leaders. Within his research findings, Hackman gives leaders ideas on how to address group structure, organizational context, or the need for coaching in order to address the process criteria of effort, talent, or strategy (Hackman, 1990).

Lastly, Druskat and Wolff (2001) give specific suggestions to teams on small things that they can do to create habits which will eventually turn into norms for acknowledging and regulating emotions. All of this research will be considered in the development of key curriculum elements for developing world-class patient centered teams at Park Nicollet.

Methodology: Plan of Execution

A phenomenological approach was used to meet the challenges of this Leadership Application Project. All of the research described in the literature review, but particularly the work completed by Nelson et al (2007) and Hackman (1990) served as a starting point in this author's understanding and development of the world-class patient centered team concept and subsequent curriculum elements. In order to establish multiple views and meanings of what a world-class patient centered team should look like, the following process was used:

1) Data were gathered using the following methods:

   a) Participation in the Leadership Fellows brainstorming sessions. The purpose of these sessions was to generate and document as many ideas as possible around attributes of world-class PCTs. Each Leadership Fellow's personal experience with teams, literature review on teams, feedback from others, and individual insight and interpretation of what a world-class PCT looks like was critical in creating the meaning of this new concept at Park Nicollet.

   b) Travel nationally and internationally with the Leadership Fellows group to accomplish two things: complete site visits/tours to personally observe teams in their natural setting, see how they operate, and compare what was seen with current Park Nicollet operations; and learn from organizations by reading and viewing their organizational publicized materials. Specific destinations were to the following cities/countries/organization:

      i. September 8-13, 2007: Jönköping, Sweden: Jonkoping County Council Jönköping is well known for low cost and high quality health care for the 300,000 inhabitants of the county. For over 15 years, quality has been their core

business strategy. Don Berwick, President of The Institute of Healthcare Improvement, calls them the "health care equivalent of the Toyota factory" (www.IHI.org). Part of their quality focus was the implementation and continued development of microsystems in all of their clinics and hospitals.

ii. January 14-18, 2008: Seattle, Washington: Boeing 737 and 787 production lines and Virginia Mason Medical Center

1- Boeing is "the world's leading aerospace company and the largest manufacturer of commercial jetliners and military aircraft combined" (www.corpwatch.org). Boeing's management system is the Toyota Production System. Also known as "Lean Production, or Lean," this improvement methodology is based on driving waste out of the system. The adoption of this methodology has transformed the way that they make airplanes, from a static production bay system to a moving production line. Boeing is in the process of building their version of the super-efficient airplane called the 787 Dreamliner. This airplane will use 20% less fuel and yet travel at the speed of today's fastest wide body planes (www.boeing.com/commercial/787family/background.html, Black, 2008)

2- Virginia Mason Medical Center (VMMC) is an integrated delivery system consisting of one 336 bed hospital and six clinics. Founded in 1920, VMMC was designed to be a "one stop shop" for patients with any health care need (www.virginiamason.org/home/body.cfm?id

=93). In 2000 VMMC adopted the Toyota Production System as a management method of improving health care. Named the Virginia Mason Production System, this system has been used to improve care and safety, to plan for new facilities, and reduce costs in a number of processes by decreasing waste (Hatten and Tonkin, 2007.)

3- St. Louis, Missouri: The Boeing Leadership Center

The Boeing Leadership Center is located on a large campus by the Missouri River. It was designed to bring leaders to a quiet and peaceful environment so that each leader can focus exclusively on their leadership development. The curriculum used at the Leadership Center is based on current research that includes a variety of teaching methods such as action learning and simulation. It is the expectation that all leaders translate this learning to "on-the-job successes" (www.boeing.com/companyoffices/aboutus/leaders). A key feature of this program is the faculty; all instructors are leaders at Boeing which supports their value of "Leaders teaching leaders." www.boeing.com/comapnyoffices/aboutus/leadershipcenter/ intex.html)

iii. January 31–February 13, 2008: Tokyo; Nagoya; Kyoto; Odewara; and Toyota City, Japan: Japan Kaizen Master's Super Flow Training

The Kaizen Master's Super Flow Training is a study mission designed to teach leaders the art of observation; specifically the people, material, and equipment flow of a process. Training consists of

observation, sketching, and discussion of processes within selected facilities and museums. Lean principles are taught and applied to the observation sessions, along with improvement opportunities. In addition to tours, leaders on this study mission are able to experience Japanese culture; including authentic meals and ceremonies (www.shingijutsu-global.com/events.html)

iv. March 6-7: San Francisco, California: New United Motor Manufacturing Incorporated.

New United Motor Manufacturing, or NUMMI, was the joint venture of Toyota and General Motors that opened its doors in 1984. This group successfully negotiated a contract with the United Auto Workers that included competitive wages in exchange for a commitment to the Toyota Production System as a way of conducting business. NUMMI produces three vehicles; the Toyota Tacoma, the Toyota Corolla, and the Pontiac Vibe. Over 400,000 vehicles are produced each year within a culture designed around five core values; teamwork, equity, mutual trust and respect, and safety (NUMMI Company pamphlet.)

All observations, facts, and other key concepts learned from the tours, presentations, and team viewing were documented on two forms: a daily debrief form and a Key Learning from Travel document. The daily debrief form was a standard form used for other PN travel provided by our consultant, John Black and Associates, and included the following components:

- Overall impression and reaction
- Key learnings

- Elaboration on three learnings that were most significant
- Lean principles demonstrated
- Helpful mechanisms, special highlights, and slogans
- Possible implications for me and for Park Nicollet

The Key Learning from Travel document was a form created by the Leadership Fellow's group prior to the start of our travel. Based on discussions around travel goals, desired learning, and expectations, eleven key areas of interest were identified through brainstorming and discussion. These areas of interest were:

- The history and background on the organization's journey to becoming a world-wide leader- what was their story? What did they do or focus on that transformed them to a world-wide leader?
- Leaders and leadership in the organization- what can be learned about leaders in these world-class organization; what was expected of them and how did they connect with their teams?
- Organizational planning- how was it done; what were the key focus areas; what were the expectations of all staff and leaders?
- Daily management- how did they make the work of the day visible? How did they display data? What actions did they do to respond to the data?
- Flow- how efficient was the seven flows in the organizations that we visited? In health care, the seven flows include: "flow of patients, flow of provider, flow of medication, flow of supplies, flow of information, and flow of equipment, and the flow of process engineering" (Black, J. 2008 p 9-10). The seven manufacturing flows consist of: flow of man, flow of machine, flow of information, flow of engineering

and tools, flow of raw materials, flow of the work-in-process, and flow of finished goods inventory (http://www.jmac-america.com/vocabularry.htm)

- Safety- how was safety incorporated into their work?
- Quality- how has quality been built into their processes and products? How was quality defined?
- Change management- what was the approach that they took to plan for and manage change?
- Communication- what was observed or heard in regards to the communication of goals, strategies, and updates to all employees?
- Training- how did they approach training of their employees and leaders? What specific training methods were used to develop high performing, competent people?
- Employee engagement and morale- what actions did they take to engage their employees in their work? How did the organizations help employees tie their individual work to overall goals and strategies?

2) Display, draw conclusions from, and reduce the data that was gathered:

Travel data

a) During each travel day, each Leadership Fellow completed a daily debrief form. At the end of each day, the group would meet and discuss each item on the form. Duplicate items would be clarified and deleted if a true duplicate was documented, otherwise an addition would be made to the item to enhance the information. A collated debrief form would be created for each day. At the end of each trip, all debrief forms were reviewed and collated into one debrief form for each destination

using the method of data display → drawing conclusions → data reduction. This information would eventually be added to the Key Learning from travel document.

b) At the conclusion of each trip, each Leadership Fellow participant filled in information on each of the key areas of interest on the Key Learning from __________ form (the location was inserted on the blank line). Once all documents were collected, all information from each Leadership Fellow was collated on one Key Learning document for each destination. At the conclusion of all travel, all of the Key Learning documents for each destination were reviewed, collated, and reduced into one Key Learning document grid. This allowed for easy comparisons of observations and learning from all of the world class companies that the Leadership Fellows visited.

c) The collated and reduced view of what was learned from national and international travel, major themes, concepts, and conclusions worth noting were identified, further reduced, and displayed into one short list of concepts. These concepts were added to the list of ideas generated from the brainstorming exercise described below.

Brainstorming data

d) The brainstormed list of ideas created by the Leadership Fellows was documented on sticky notes and used as a starting point in an affinity diagramming exercise. Affinity diagramming is a "bottom's up thinking and planning tool that is used to take a large amount of ideas and classify them by subject matter" (Boeing, 2007, 3-75.) All of the ideas were categorized during the affinity diagram exercise and placed on a wall. Duplicates were eliminated. Each category was named and considered the initial PCT characteristics.

Identification of PCT characteristics

e) Using all information from brainstorming and travel, world-class PCT characteristics were identified, named, and operationally defined.

f) The relationship or connections of each PCT characteristic was determined using interrelationship diagraphing. An interrelationship diagraph is a "planning tool that uses lateral thinking by visually displaying the characteristics in a circle and drawing arrows to signify which characteristic drives the other, or must be in place for the other to occur" (Boeing, 2007, 3-75). The outcome of this exercise was to understand and conclude which characteristics were the foundational team characteristics and must be developed first before the receiving characteristics can be addressed.

g) Tree diagrams were created for all team characteristics, but most importantly for the foundational characteristics. Tree diagrams, the last planning tool used in this Leadership Application Project used top-down thinking. Specifically, tree diagrams make thoughts tangible and actionable by going from generalities to specifics. The tree diagrams identified "what" steps need to happen or "what" content needs to be included in the curriculum in order for the characteristic to be developed (Boeing, 2007, 3-75.)

3) As more data were collected or considered, the data display → drawing conclusions → and data reduction process was repeated to consider its meaning and further create the concept of world-class PCTs at Park Nicollet.

Findings

Travel

Data were gathered via brainstorming and travel experiences from September 2007 to April 2008. Travel began in September 2007 to Sweden and the initial brainstorming exercise was held in November 2007. The review, refinement, and validation of the consistency of the characteristics were worked by this author from January to July 2008.

Travel data and summary were derived from learning experiences at each of the following destinations:

Jönköping, Sweden County Council: September 10-13, 2007

Presentations and handouts from Qulturum staff members included:
"Transforming Care at the Bedside, the Swedish Experience"
"The County Council's Vision: For a Good Life in an Attractive Country"
"The Future is now!"
"Pursuing Perfection"
"Empowerment to People"

Note: Qulturum is a meeting place or think tank created by the Jönköping County Council for training and improving health care.

Tours in Jönköping included:
Värnamo and Höglandet Health Care Areas
Vaggeryds primary care centre
Ryhov hospital

Travel Summary

The Jönköping County Council is responsible for the health care, dental care, culture (including the theatre and the orchestra), and public traffic for approximately 300,000 inhabitants of Jönköping County. They operate three hospitals and 34 primary care units that are organized in 3 districts. Health care is guaranteed in Sweden and 10% of what people earn is collected through taxes and distributed to the council. This results in a fixed budget for delivering health care. The Swedish government also establishes national care guidelines and once a guideline

decision is made, it is mandated and must be included in the existing health care budget. The council works towards achieving the vision, "For a good life in an attractive country" (County Council Vision presentation) and have used quality as a strategy to control costs. They are financially stable with no debt.

The Jönköping County Council's journey to becoming a world leader in health care began in the mid 1990's when one hospital decided to apply for the Swedish version of the Malcolm Baldridge quality award. Although they did not win the award, this exercise alerted the council to begin looking systematically at quality. The PDCA or Plan-Do-Check-Act cycle is taught as the improvement methodology for the council. Additionally, they have successfully used fictitious patient names and created patient flow stories to study and improve processes. Of great importance to the health care professionals is the patient's true needs based on his or her values.

Strategic plans are designed to be multi-year and focus on the patient, learning, and innovation in five areas: access to care, cooperation/flow, clinical improvement work, patient safety, and medications (The Future is Now! Presentation, 2005.) Financial goals are considered the top priority as spending can only happen when money is available. Financial and quality targets are established for each clinic and hospital department that are non-negotiable and expected to be met by year's end. What is negotiable is how the targets get met and there is an understanding that each team is at a different starting point. Strategic plans include improvement ideas based on variation or gaps in expected performance levels. There is a sense of urgency to improve and it is reinforced that "the future is now," therefore teams should focus on areas that worry them now (The Future is Now! presentation, 2005). Dashboard and outcome measures are

visible for all team members so that progress or the lack of progress is known in a timely manner. Overall decisions are made based on the good of the whole.

The role of the leader in the hospital or clinic is to be a production manager. He or she is expected to have a system's view of the organization, specifically how his/her department relates with one another in caring for the patient. The leader is responsible to build relationships with all staff members and build a high performing team that understands and improves the system. Team meetings are expected to take place each month to develop teams and facilitate communication. A leader is provided leadership training and development opportunities in order to perform as expected.

Safety has been included in the county's improvement work since the 1990's. Sweden has a system to document and track all safety concerns called Synergy. All safety issues are carefully reviewed and studied to prevent any re-occurrence and a report is sent to the safety officials for the country (Ryhov Hospital tour).

The council established Qulturum as a think tank, training center, and change facilitator. One philosophy of Qulturum is that change requires an action. When action happens, new thinking can occur and long lasting change can result from this new thinking. Anyone attending sessions at Qulturum receive training on a variety of improvement tools. One tool is the 5P exercise. This tool, designed by Nelson et al (2007), is used to understand the purpose, patients, people, process, and patterns in a work area. Areas of need are identified and a plan to address the need is developed. Overall, they design a best possible flow to get patients through the organization to the most qualified for the need and use non-physicians extensively. A change made at any clinic or hospital department is tested for 7 months and others are invited to view the change in action. It is understood that in order to change, leaders must stay and support

management as the change in being transformed into business as usual. Once proven, then the change is presented at Qulturum and others can replicate what was developed. This method of storytelling drives and pulls additional change at sites.

Teams and leaders take time to meet face to face, via informal or formal, pre-arranged meetings. There is a constancy of message in all communication. One consistent message given is that "everyone wants to be on a winning team, but in order to win; one must constantly improve" (The Future is Now! presentation, 2005.) To achieve this, everyone must have a full understanding of how process and measures support the work place. Managers are expected to provide clear expectations of the mission, vision, goals, and other information. If employee training is needed, it is done on-the-job.

As an observer at the hospitals and clinics, all of the areas that we visited were simple, free of clutter, quiet, and calm. This included both the work and break areas. There was a sense of respect for these environments by all team members. This was evident in the constant visual inspection of the environment and observation of team members cleaning the area or picking up items that were out of place. One great experience was having the opportunity to have morning coffee break with the lab team. The break area was set up with food and coffee and all team members mingled and talked with one another. When break was over, all team members helped to pick up the area and return to the lab together. The Leadership Fellows asked the group if they normally had break in the manner that we experienced and they responded yes, they always shared good food and coffee together. We interacted with knowledgeable leaders who articulated their goals, understood the system, and their role in improving the system. They articulated that the focus of their work was for the patient, not only when in the clinic and hospital, but for the time that the patient recuperates at home. Employees were aware of their

team goals and were continually looking for ways to improve their work. Employee ideas that were implemented were publicly recognized on display boards. This visit was an eye-opening experience to see what teams can do and the care that they can deliver on a fixed budget.

Virginia Mason Medical Center, Seattle Washington: January 15, 2008

Presentations and handouts included:

"Virginia Mason Production System- Past, Present & Future"
Hospital Flow & Cell
3P/Hospital/Surgery section

Tours:

Cancer Institute
The Center for Hyperbaric Medicine

Article:

Virginia Mason Medical Center: Focusing on Customers, Standardizing Improvements. by Julie Hatten and Lea A.P. Tonkin (2007).

Travel Summary

Virginia Mason Medical Center (VMMC) is an integrated delivery system located in Seattle, Washington. Virginia Mason was established in 1920 with one 80 bed hospital and six clinics. Today, the hospital is 336 beds and there is a network of clinics for patients. In addition to the hospital and clinics, Virginia Mason is known for their research institute, the Floyd and Delores Cancer Institute, the Bailey-Boushay House for people living with AIDS, and their Hyperbaric Medicine program (Virginia Mason Production System- Past, Present, Future presentation, n.d, www.virginiamason.org).

VMMC's journey to becoming a worldwide leader started in the year 2000 when leadership knew they needed to do something different. VMMC was feeling "lower reimbursement rates, higher costs, a competitive market, a 3% defect rate, and less than adequate

financial performance" (Hatten and Tonkin, 2007). To create a burning platform for change, the leaders crafted a new vision: to become the quality leader in health care. In order to achieve this new vision, they needed to do things differently. In that same year, VMMC adopted the Toyota Production System as their management system. This management system, renamed the Virginia Mason Production System, is the method by which they "make things the right way." (Virginia Mason Production System-Past, Present, Future presentation, n.d.).

In their effort to become a worldwide leader, VMMC has developed a multi-year strategic plan. This plan has been depicted in graphic form and is designed around the patient and includes multi-year goals and targets. Key strategic areas are people, quality, service, and innovation. Lead time reduction and safety are two key focal points to drive efficiency, cost reduction, and quality. Teams are reinforced as the method of care delivery and there is a "Team Medicine" tag line on all communication. Effective leadership is a must for this organization in order for change to occur. They strive to have the right people in the right positions and will quickly eliminate leaders that do not "fit" the expected "we will do" attitude (Virginia Mason Production System-Past, Present, Future presentation, n.d.).

In order to achieve their vision of becoming the quality leader in health care, the concept of quality has been defined as an equation using the concepts of appropriateness and waste. Appropriateness is defined by VMMC's only customer, the patient, and is the sum of the outcome of care and service:

$$\text{Quality} = \frac{\text{Appropriateness (outcomes + service)}}{\text{Waste}}$$

(Virginia Mason Production System-Past, Present, Future presentation, n.d.).

To learn from their patients, VMMC invites patients to be involved in many of their quality improvement efforts. One project that has resulted in dramatic improvements in quality was in the hyperbaric medicine program. Many patients needing hyperbaric therapy have either endured a water accident or have chronic wounds that will not heal without intensive oxygen therapy. Using patient input and the care team's creative energies, they worked for many months designing "a travel adventure" for the patient that would begin each time that he/she comes in for a lengthy (multi-hour) visit. Key components of this adventure include a "beachside changing room," a "cabana meeting area", a "travel itinerary" including a list of fellow passengers, and a "boarding pass for the big dive" to enter the "submarine" (the multi-person hyperbaric chamber.) The impact of these changes has been dramatic. Patient compliance and ownership of his/her care has exceeded all expectations; surveys reveal fully satisfied patients; long term friendships have resulted from the "group trips;" and patient outcomes have surpassed their original goals (The Center for Hyperbaric Medicine Tour).

Leaders sign leadership compacts when they join the organization. This compact articulates the expectations of leaders at Virginia Mason. Of note, there is also a physician compact that articulates physician expectations. As part of the compact, leaders are required to understand the mission and the vision of the organization and how they personally fit into continually meeting the mission and working towards the vision. They are also responsible to create an environment that motivates others to the vision. Certification in Lean methodology, a method of process improvement focused on the elimination of waste in processes is required to support the Virginia Mason Production System.

Work is made visible on white boards in team areas. This includes the team members working today and his/her hours, the number of patients in the hospital unit, and planned patient

discharges for the day. Additional work has been done by nurses in the hospital to develop a standard cycle of work (including greeting the patient, assessing the patient and planning goals for the shift, administering medications, and documenting the activities and outcomes as the nurse completes the tasks) and the expected length of time to complete this cycle of work (approximately three hours). If the nurse is not done with the cycle of work at the expected time, help is deployed to that nurse so that the work can get done and the entire team stays on track to complete all work within the shift (Hospital Flow and Cell presentation).

Lean methodology or the reduction of waste in processes is used as the improvement methodology at VMMC. Work processes have been standardized and standard work documents identify the tasks and time that it takes to complete a cycle of work. Additional improvements have resulted in the creation of work cells on nursing units. A registered nurse is paired with a patient care tech to care for a set number of patients. The assignment of patients is not based on acuity; rather it is based on the grouping of patient room locations. Each team member starts working in different patient rooms. They follow a planned flow which crosses in the middle of the patient room assignment. When they cross, they discuss what they have encountered, make adjustments, and continue in the opposite direction from one another. This prescribed flow has resulted in a team member being present in a patient room 90% of the time. This method of delivering care has increased patient satisfaction, reduced the frequency of call lights, and improved staff morale (Hospital flow and cell presentation, 2008).

Other areas of flow work were evident in their construction of a new building in the hospital. Using concepts from Disney, VMMC staff has designed new hospital wings which feature "on stage" and "off stage" areas to divide staff, supplies, and equipment from patient flow. Flow work has also included the identification of having the right person doing the right

work. For example, Housekeeping staff is responsible to change all bedding unless a patient is immobilized (3P/Hospital/Surgery Presentation).

Safety has been an organizational concern since the death of a patient from a medication error. A picture of the patient who died from the medication mishap is present in all medication preparation areas along with a message to carefully check the medication in her honor. Two other areas of safety that VMMC has worked on are a "stop the line" and handoff process. The stop the line process was developed to allow all team members to stop the work and prevent a process from continuing as well as documenting this concern in an application for review and escalation. No concern is considered a false concern and VMMC leadership responds to all concerns. In the area of handoffs, all handoffs related to patient care are made in front of the patient with the sending and receiving staff present. This has made communication clear and the patient involved in all transactions.

All of the improvements documented above have not been easy for the staff and leaders at VMMC. They reported that perseverance, even in the face of resistance has helped them with the massive change initiative. All employees have received training in Lean methodology and the Virginia Mason Production System. The careful selection of projects helped with the change as well. Starting with standard and repetitive work has brought immediate value to the lives of care team members as they moved from reactive care to proactive care. Employee ideas have been included in care improvements and a formal program to reward employees for their ideas is in place and used every day. Lastly, proposed changes were practiced in a simulated environment to ensure that the intended changes work before they are rolled out to departments.

VMMC, like Jonkoping County Council, uses storytelling to communicate successes and failures of the organization. Stories of improvements are routinely shared at the management

group meeting. Consistent use of publications, pamphlets, department information boards, and presentations use the same stories and same pictures to reinforce the history of the organization and their journey to being the quality leader in health care.

Boeing Manufacturing Plants (Renton and Everett) January 16, 2008

Presentations for the following:
"Lean at Boeing"
"Program Management at Boeing"

Tours:
The 737 moving line in Renton, Washington
The 747, 777, and 787 production lines in Everett, Washington
Boeing's Future of Flight Center

Travel Summary

The Boeing Manufacturing Company has identified that the adoption and the implementation of the Toyota Production System as their success story to becoming a worldwide leader. This did not happen immediately, and they site perseverance and consistency in their approach that moved them to new levels of performance. Time was spent educating Boeing leaders on the Toyota Production System and Lean methodology including international travel to Japan to learn from the masters of lean. Once the leaders were fully educated then all employees learned about the new way they were going to do business. Business practices were changed to meet the principles of the Toyota Production System that includes just-in-time production, mistake proofing, and one piece flow. Kaizen is the basis for improvements. These principles led to a new way of building an airplane on a moving line vs. a static bay system (Lean at Boeing presentation).

Leaders at Boeing are responsible to make sure that everyone is successful in his/her job. This includes establishing relationships based on trust, focusing on problem resolution so that employees can do their work, and communicating the link between each employee's work and the vision of the company. This is not a task that is taken lightly and job rotation is part of the leadership development program so that each leader fully understands the company.

Boeing has multi-year plans that are driven by customer input. Lead time, or the time from the start to the end of a defined process, as well as quality issues are of utmost priority. Flow is of concern to Boeing as it has both a static bay and moving production lines for the creation of various airplanes and there is a desire to get all lines to a moving line. Kaizen, or incremental change using Lean principles, is the method for improvement in their business processes. Improvement measures are carefully designed and selected so that the measure reinforces the right behavior. Improvement opportunities are practiced in a simulated setting before it is brought to the production floor.

Safety, quality, and daily management are included in Boeing's day to day work. This is evident in the existence of a large production management board that is visible in the plant. There are signs, posters, and reminders about worker safety. Inspection is built into all processes to ensure that no defects are passed on to the next area. Like Virginia Mason Medical Center, there is a stop the line process and every employee is empowered to pull a cord and stop the work to ensure that safety and quality are maintained in their product. Quality is defined as full customer satisfaction.

Like the other areas that we visited, Boeing struggles with making changes stick. They spend time and money developing and training employees and leaders in many areas including change and the need for continuous improvement. Employees have many opportunities for on-

line education, even during working time. Leaders attend leadership development classes at the Boeing Leadership Center. The leaders at Boeing stressed the basics of leadership at Boeing. These basics include:

- In order to really understand what is going on, you need to go to the place where the work is being done and observe the work. Ninety percent of the leader's time should be spent on problem solving and ten percent in standard leader work.
- You need to communicate face-to-face and be "present" on all work shifts so the employees see and hear from you.
- The use of language is important and care must be taken in the choice of words used.
- Improper metrics drive improper behavior. Leaders must ask, what behavior am I trying to get and is this measure right?
- Great ideas come from employees.
- Not all people are wired to understand Lean principles so they do not spend time trying to convince them.

Boeing Leadership Center: January 18, 2008

Presentation and handouts from the following:
"Leadership…Charting the course to build a competitive advantage"

Tour:
Boeing Leadership Center

Travel Summary

The Boeing Leadership Center is located in an isolated campus in Florissant, Missouri. The center features four lodges, a dining room, meeting areas, classrooms and breakout rooms.

It also has a ballroom and fully equipped and professionally staffed exercise gym. These resources support the idea that the leader needs to be nourished in all areas: the body, mind, and spirit. This nourishment will help each person become a better leader. The purpose of the center is to bring leaders together from all parts of the world, integrate them into operations, and build a consistent culture based on the core Boeing values. They focus on training that can be applied to on-the-job successes. The goal of leadership development is to create leaders that are considered valuable outside of Boeing (Leadership…Charting the course to build a competitive advantage presentation, 2007.)

In order to perpetuate this program, Boeing considers it a leader's responsibility to train other leaders and experienced leaders are frequently recruited to teach the curriculum. A driving philosophy of the program is that leaders learn by telling stories and being vulnerable (Leadership…Charting the course to build a competitive advantage presentation, 2007). Vulnerability is achieved by providing an open culture for dialog and candid discussions.

As part of the curriculum, leaders are taught what it means to be a leader at Boeing and the responsibilities that come with this role. A major responsibility of the leader is to change the culture by establishing strong relationships and getting employees involved in the work that they do. Strong relationships are considered the basis for building strong teams rather just presenting data (Leadership…Charting the course to build a competitive advantage presentation, 2007).

Leadership development is not considered a quick process and development opportunities are spread out over a twelve month period. Each leader has a customized developmental plan along with periodic feedback and visits back to the Leadership Center for additional sessions. Strong and effective leadership is considered a competitive strategy and "deliberate succession planning" is in place so that the next leader is ready to fill the spot when required.

From direct observations and experience in the setting, this environment sets the tone for "total" leadership learning; mind, body, and spirit. The atmosphere is calm and quiet. There are no work distractions and easy to read daily management boards list the classes, times, and attendees.

Japan Superflow: January 31-February 13, 2008

Museum Tours:

- Toyota Commemorative Museum of Industry & Technology
- Toyota Kaikan Exhibition hall

Plant tour, sketching, and discussion on improving production flow at:

- Yamatake Sehara and Shonan lines

Plant tours: All tours included a description and explanation of the factory outline and background of the companies by factory leaders. Plant tours were conducted at the following plants:

- Yamaha Piano Factory
- Yamaha Motor Plant
- Toyota Boshoku Plant
- Aisin Plant
- Toyota Motors

Materials distributed:

- Yamatake Corporate Profile and Product Information booklets
- Yamatake Shonan Factory Profile handout
- Toyota Kaikan Plant Tour and Museum pamphlet
- Invitation to Yamah 2007-2008 Yamaha Motors booklet
- How Yamaha Manufactures the World's Finest Pianos
- Welcome to Yamaha Motor Co., Ltd: Guide to Our Motorcycle Manufacturing Factory
- An Automobile is made of many Different Parts- Toyota Boshoku booklet

Travel Summary

During the Japan Superflow trip the Leadership Fellows visited five manufacturing plants and two company museums. Visits included tours, direct observation and study of production lines, and one in-depth two day plant exercise at the Yamatake plant. At each location, there was

an opportunity to learn from the company's leaders and employees. Although each company had its own story, there were many similar themes that emerged from their history and journey to success. One theme was related to the mission and vision of the company. Each company had a mission and vision statement of a higher purpose. An interesting example of this was Yamaha Piano factory's mission or what they call their objectives. "Creating kando (an inspired state of mind) together" and "Creating kando that exceeds our customer's expectations" drives the reason for their existence and where they want to go (Yamaha piano factory tour). Inherent in this mission/vision statement is the top quality pianos that are the vehicle to kando. Other mission statements posted at the companies visited were:

- Toyota Boshoku: "To make cars of the world more comfortable and more environmentally responsible"
- Toyota: "Being studious and creative, striving to stay ahead of the times."
- Yamaha Motors: "Our Future, Your Smile."
- Aisin-Niship Plant: "Consideration for Environment, Comfortable Work Place."
- Toyota Kaikan Plant: "Good Thinking, Good Products."
- Toyota Tsutsumi Plant: "Aiming for a better Earth Environment."
- Yamatake: "Realizing safety, comfort, and fulfillment in people's lives, and contribution to the global environment through human-centered automation."

Another theme that was identified as a key component to each company's success was the disciplined use of the Toyota Production System to manage and improve processes through Kaizen. This improvement journey has been a long one, focusing on incremental improvement year after year.

The job of the leader in the plants that we visited was described as a problem solver. This means that the leader goes to the place where the work is done, sees the problem himself, and works with the employee to resolve the problem. This method helps to quickly solve problems and instill a culture of teamwork and change. Respect for each employee and the impact that each employee can have through their ability to think was reinforced as the foundation for great teamwork and employee engagement and morale.

Like Jonkoping County Council and VMMC, the Japanese companies create multi-year plans. Using a process called the Hoshin Planning Method, these companies create overall goals and strategies to get to their goals. All goals are cascaded down throughout the company and each level of the company creates their goals and tactics that will directly contribute to the organizational goals. All employees are involved in the planning process using a method called "catch ball." This process includes asking for all employees' feedback on proposed plans and collecting ideas on how to improve the plan. The plan is re-worked and then brought back for more feedback.

In all of the manufacturing plants that we visited there were visual management boards of some sort. Production control boards were visible in all work areas so that employees knew how many products needed to be completed and their progress towards meeting the goal. Daily huddles were observed that included the following agenda items: production requirements for the day, team goals, work reminders, and organizational announcements. Another form of visual management observed was Kanban. Kanban, or a signal card, was used to alert the proceeding process or vendor that a part was taken and needs to be replaced. Using this method of notification allowed many of these companies to have very small spaces dedicated for the

inventory of supplies or parts. Additionally, kanban allowed for quick turnover of the inventory that they had.

At all of the companies that we visited, quality was defined as zero defects and there was a continual focus on eliminating defects throughout the production process. A stop the line process was in place for any employee to use and was directly observed by the Leadership Fellows. Each step included a self inspection so that no defect was passed on to the next process and standard checklists to ensure quality were used by factory employees. Additionally, mistake proofing improvements were seen on the lines. One example of this was at the Yamatake plant. This author directly observed many custom built product holders and other gadgets on the production line so that various products could be quickly and accurately positioned for the next part or inserted correctly into a machine the first time.

The flow of the work at the factories that we visited was very smooth and rhythmic in nature, almost like a well running machine. When a line stopped due to a question of quality, all lines stopped for a very short period of time. Employee work cells, arranged in U shapes, had supplies within arm's length and replenished by other workers called water striders so that the employee had a constant supply of what he/she needed to do his/her job. In order to keep flow running or to improve flow, the focus is on teamwork, a clean work environment, and the supportive leadership in order to make incremental changes. On the negative side, the rhythmic and repetitive nature of the work made the employees truly look like human machines, never stopping until they were told to stop. Interestingly, when asked if they liked their job, the employees all stated "yes, we do!" Overall, there is a culture of continual learning and that learning happens by trying something and failing. All employees are expected to continually

improve their work by suggesting two improvements to their work per month, and working with the team to make the necessary changes.

Leaders who presented the information about their organization to our group stated that they continually learn about their organization and business processes by telling their story. Story telling helps them to reinforce their constancy of purpose and receive feedback that helps them improve their work and product.

Employee training and development is taken seriously and carefully planned out. One example was at the Toyota Kamigo plant. There they focus on three aspects of human resource development: on the job training, collective education, and self development. The leader is responsible to see that each employee has a development plan (Kamingo plant tour). At Yamatake, new employees receive six months of training and the first module of training is focused on quality. At the Aisin factory, workers are considered temporary until their training is complete. Once employees are fully trained, they are invited to take a test. If they pass, they are hired as a permanent employee, if not, they are dismissed. At all factories, training is considered knowledge that must be shared. Once an employee is trained, he or she is responsible to be a trainer for the next person.

NUMMI: March 7, 2008

Movie:
"NUMMI"

Tour:
NUMMI facility

Lunch and sharing of journey with NUMMI Leadership

Materials:
New United Motor Manufacturing booklet

Travel Summary

NUMMI was the last trip taken by the Leadership Fellows. NUMMI is the joint venture between General Motors and Toyota and was built around the Toyota Production System (TPS). The plant opened in 1984 with the understanding that salaries would match other union shops, but would not be unionized in order to allow for flexibility and commitment to using the TPS. Their mission is "Through teamwork, safely build the highest quality vehicles at the lowest possible cost to benefit its customers, team members, community, and shareholders" (NUMMI booklet). The mission is built around five cornerstone values of teamwork, equity, involvement, mutual trust and respect, and safety (NUMMI booklet).

Like the companies visited in Japan, NUMMI leaders focus on people (employees and customers) as the main part of their job. Each leader is obligated to provide employees the opportunity to do a good job and must establish a strong relationship with each team member. Frequent feedback is part of the work of the leader so that each employee knows how they are performing. Leaders are also required to fully understand the organization and production flow and are frequently rotated to other areas of the company to get this knowledge. Equality of all employees is evident inside and outside the factory including no executive parking spaces or separate dining rooms.

Multi-year plans are in place at NUMMI with a focus on quality, safety, and flow. When touring the actual production line, the look and feel of the line was that of the factories in Japan challenging the thought that the Japanese work culture and Toyota Production System cannot be infused into the United States. Similarities included visible production boards, a moving production line with a built in stop the line process if a quality issue arises, just-in-time delivery of supplies to each area, and a clean, safe work environment. The responsibility of improvement

by all employees was reinforced by messages on posters hung in many areas of the factory. These messages included the statements of "Quality-confirm with your eyes" and "Remember, Quality is within our control." (NUMMI plant tour)

What was more apparent at the NUMMI factory than the Japanese factories was the pride shown by the workers at NUMMI. They talked about their involvement in making NUMMI a great place to work and improving the community through their special projects. They touted the great benefits of working at NUMMI which include full health care benefits for families and the ability to buy the cars and trucks that they make at a discount price. They also reinforced the company's commitment to no layoffs. All of this has lead to a strong commitment to remaining competitive in the auto industry.

Travel Themes

In order to compare and contrast the learning from all travel, content from the above travel summaries was collated and displayed in table form called Key Learning from Travel document. This comparison graph is viewable on Appendix 1. This display of information was used to identify travel themes.

Travel themes/patterns were created as a result of the phenomenological process that was used to understand world-class teams: travel data was collected and displayed in table form, conclusions were drawn based on repeated exposure to and documentation of team/company behaviors and information, and these conclusions lead to a reduction of the data. This data reduction resulted in the following themes:

- History/Background themes:

  - All world-class companies had a well articulated company story and vision statement that was focused on a higher purpose.
  - Each world-class company had a multi-year, narrowly focused strategic plan that was consistent with their vision. The disciplined implementation of the plan allowed them to stay on course and become successful in what they produced.
  - The majority of the world-class companies adopted and dedicated time and effort to the Toyota Production System as their management system and Lean as their process improvement methodology.
  - All of the world-class companies focused on the customer and the customer requirements.
  - All of the world-class companies displayed pride in the work that they do.
- Leader themes:
  - Each world-class company clearly articulated their expectations of leaders. These expectations included:
    - Leaders were considered production managers. They must respond to problems by going to the environment where the work is done, observe the problem for themselves, and work with employees to solve any problem that arise.
    - Leaders must have a system's view of the organization and understand how their team and the work that they do contributes or detracts from the system.
    - Leaders were required to establish good relationships with their employees and build a good team.

        - Leaders must see to it that employees have the opportunity to do a good job. This is done by:
            - Placing the right people in the right positions.
            - Assigning the right person/role to the right work.
        - Leaders must have defined development plans for their employees.
        - Leaders have an overall responsibility for defects produced by his/her team.

- Planning Themes:
    - Each organization had a consistent vision that was articulated at every appropriate opportunity and used in all planning events.
    - There was evidence that multi-year plans were in place with associated yearly goals.
    - Employees were involved in the overall planning process in some way.
- Daily Management Themes:
    - Work to be completed that day was quantified and displayed in the team areas.
    - Action was taken based on the progress or lack of progress made during the day including movement of work and operators to different team areas.
- Flow Themes:
    - There was evidence that flow had been maximized in order to move patients through a department or a product down a production line.
    - Principles of Lean methodology were used to study and improve flow through teamwork. (Lean methodology, or Lean, is defined as the process improvement method based on the Toyota Production System. This improvement methodology focuses on identifying waste in processes and eliminating them in half (Black, 2008).

  - The actual work station or the flow of work was designed so that a worker moves in the direction of the letter U, starting at the top of the letter and moving down and around, and coming back up the U. One cycle through the letter U signifies one cycle of work. The world-class teams that were observed focused on one cycle of work to understand and improve flow.
  - Leaders were responsible to see that flow was smooth. This required them to be in the "gemba," or where the work was done and observe the flow in order understand their business at a detailed level.
- Safety Themes:
  - Work environments were clean and uncluttered. The 5S process (a process to organize an environment to minimize waste) was used to create and maintain a clean work area.
  - Safety was built into each and every process and directly observed.
  - A "stop the line" process was in place and all employees were expected to invoke this process in order to prevent harm to a patient, employee, or customer. Leaders were required to respond, investigate, and resolve the situation.
- Quality Themes:
  - Quality was defined as full customer satisfaction.
  - There was an attitude that teams can always do better.
  - Data were openly displayed in each team area.
  - There was a stop the line process that any employee could invoke that signals a possible defect. Leaders were required to respond, investigate, and resolve the issue so that a defect was not passed on.

  - Improvement in quality was aimed at reducing defects.
  - Quality checks were built into each process step.
- Change Management Themes:
  - Changes need to be driven by employees using their ideas.
  - Teams were allowed to start where they were at in their change cycle. Management understood this and allowed the team to make the changes in the manner that they determined best for the team, but still meet expected deadlines.
  - The naming and use of a fictitious patient and her care story was an effective way to engage teams in a change.
  - Failure was OK and teams must not be afraid of failure in order to improve their performance.
- Communication Themes:
  - Face to face communication was of utmost importance.
  - Management communicated consistent messages and delivered these messages frequently and in various modes.
  - Daily team huddles helped teams understand the work for the day, determine how the work would get done, and address any other important issues or concerns.
  - We learned that story telling is an effective method of learning; not only for the audience, but also for the team.
- Training Themes:
  - Training included simulation exercises.
  - All team members were required to receive on-the-job training.
  - Time was dedicated for training.

- Employee Engagement and Morale Themes:
    - Teaming and relationship building was a priority for management. Trust was considered the foundation of relationship building and must be established on the team.
    - Equity, respect, and value of all team members were paramount.
    - Employee learning was a priority and extensive training programs were in place that employees described as motivators.
    - Employees saw themselves in the vision of the company as evidenced by the words they used and the excitement in their voices as they spoke about their role.
    - Employees were identified as the best people to improve their work. Local idea generation (a certain number of ideas/month) was a requirement of each team member and there was a process to capture and reward employees for their ideas.
    - Employees clearly understood what was expected of them as well having full knowledge of how they were performing via routine feedback from their manager.

How do these identified themes stack up to health care as we know it today? Although there were many differences seen, this author identified three big differences in world-class organizations vs. the health care industry in the United States. First is the clear delineation of the customer. In health care organizations today, there continues to be confusion of who the customer is. Is it the patient or is it the doctor? At Park Nicollet, there continues to be a gap in processes that reinforce the continued focus on doctors as the customer. One example of this is clinic hours. Although patients prefer to be seen early in the morning, after work and late in the

evening, or on the weekends, there has been a struggle to change hours due to the preferences of the doctors.

The second big difference in what was seen in the world-class organizations and in health care is the definition of quality and methods of ensuring quality. Quality is defined by world-class organizations as full customer satisfaction that suggests not only product satisfaction but also service. This means listening to the customer and meeting his/her requirements. Health care is lagging in service quality due to the fact that the industry has not had to worry about that. Now with costs rising and patients paying for more of their health care, service have become very important to the entire health care industry.

Ensuring quality in world-class organizations means that work is inspected by all team members before there is a hand off to another team member or the next step in the process. The health care industry is known for making errors, up to 98,000/year (Institute of Medicine, 1999). Many processes are completed without self inspection and defects are passed on. World-class organizations have created stop the line processes that give each team member the authority and accountability to stop the work if a quality breech is suspected or found. Virginia Mason Medical Center and a few others have this in place, but others, like Park Nicollet, need to make this a reality in every day work.

The last big difference seen in world-class organizations vs. health care is a focus on flow, or how the work gets done so that it is efficient and effective. The flow of people, supplies, and equipment are standardized so that the amount of time that it takes to do a task or process is understood and constantly improved. This focus is just starting to be part of many health care organizations.

All of the travel themes identified above were added to the brainstorming results as part of the data collection, data display components of the phenomenological process. These themes were a key component to the creation of the world-class patient centered team characteristics.

Brainstorming Results

Over one hundred ideas were produced in one Leadership Fellows brainstorming session. These ideas were generated by completing the following sentence, documenting the response on a sticky note and placing the paper randomly on a wall:

"World-class patient centered teams are characterized by……"

Each of these ideas was reviewed, clarified as needed, and an affinity sort was done to divide the ideas into fifteen team themes. The reduced list of travel themes were also reviewed and added to the appropriate subject matter in the sort following the Leadership Fellow's travel. The title of each theme was identified from this exercise and was structured to complete the statement "World-class patient centered teams are characterized by….," therefore the theme did not necessarily follow proper sentence structure. A few examples of the themes that emerged from this work were:

"Doing what is right for the patient"

"Playing well with others"

"By the way they plan and set goals"

The full list of the fifteen themes along with a description and analysis of the brainstormed ideas associated with the theme is described below:

1. An obsession for safety of patients and the team- within this theme, there were five sticky notes dedicated to three areas of focus to ensure safe health care. The first area was on the required recipients of safety: the patient and staff. The second was on the environment and the need to have a work environment that is clean, well organized, and free of clutter. The third focus was building safety into the team's processes along with an established stop the line process so that anyone can stop the work and ensure that mistakes do not get passed on.
2. Doing what is right for the patient- seventeen ideas were generated under this theme. Seven of the ideas within this theme were centered on the concept that the patient is our #1 focus, and we must "know" the patient as a person. This includes understanding her values and goals so that we respect her, treat her with dignity, can anticipate her needs, and provide comfort. Eight of the ideas focused on the patient as a team member. Included in team membership was ensuring that the patient has a relationship with all team members and feels engaged as an active part of the team. Lastly, three ideas were directed at handoffs. World-class teams must guarantee an effective and personalized patient handoff to other care teams.
3. Playing well with others- Seven sticky notes were dedicated to the cooperation within the team and across other teams who care for Park Nicollet patients. Two of the seven ideas focused on a team's understating of two things: that they are part of a larger system, and have a sense of urgency to cooperate with other teams in the name of effective and efficient patient care. One idea was directed at the individual team itself and the need for

each team member to know all other team members, including support staff. The final four ideas were aimed at the need to connect with other teams to keep abreast of the patient's progress through the system.

4. A deep understanding of cost and value- The six sticky notes within this theme can be broken down into three subjects: Understanding the cost to delivering care and the performance of the team and overall organization (two ideas); practicing good stewardship by using timely information to help the team improve and patients make good decisions based on the cost of care (three ideas); and learning about the value of the services that we provide and the costs associated with that level of service (one idea).
5. Cultivated team excellence- forty-eight ideas were grouped within this theme and can be broken down into two components: ideas around the team itself (identifying the group of people as a team, the behaviors of team members, and the results of team excellence) and team training. Eleven of the forty-eight ideas were focused on behaviors or actions that could be observed by others. This included the formal identification of the group as a team, a stated commitment to the team, a positive attitude, a shared vision, cooperation to help others on the team as needed, and taking the time to get to know each other as team members and the role that they play. Twenty-seven ideas were focused on the results of team excellence and included helping and encouraging one another, understanding their limits as a team, holding the team accountable for their performance including the practice of self-audits and self-discipline practices, being receptive to change and continual improvement, and truly enjoying the team and showing outward pride. These features result in a high demand to get on that team. The last nine ideas were aimed at individual and team development and learning. Ideas included having a career

development plan for each team member and implementing that plan. It also included team training and learning. Specifics related to training were: understanding team training needs, the right method of training for the team to learn including simulation away from the clinical area, and making the time to get the training done. Lastly, team learning is a result of storytelling and teams must be giving the opportunity to learn how to tell their story, have opportunities to present it, and then improve based on feedback and networking.

6. By the way they plan and set goals- Ten sticky notes were generated around planning and goal setting. These ten sticky notes can be broken down into who is involved, what is included in the planning, and the commitment of team members to the plan. One idea was that the entire team should be involved in the planning process. Five sticky notes focused on a deliberate planning process to include a proactive assessment of new services and technology, a team competitive analysis, and both a short term and long term plan. Three ideas were around defining team objectives and goals ensuring that they align with the corporate goals and objectives. The final idea was team commitment to the common goals.
7. Effective use of tools and systems- Three ideas were generated for this theme. One was focused on triggers or the good use of prompts and reminders. Another was on using tools or internal systems to support the patient within the team's confines. The third idea was providing feedback to improve external systems to support the patients. One example of an external system is patient transportation companies. Giving feedback to them on care requirements could help the company improve how they transport a patient in a safer way.

8. Using data to improve outcomes- Eight sticky notes of ideas around this theme were generated. One idea focused on the patient's definition of quality and making sure that we define quality in this manner. Three ideas were targeted on the construction and agreement of measures, ensuring that they are simple and actionable and well understood by all team members. Two ideas focused on tracking and managing outcomes, including the visual display of all measures. Lastly, three ideas were all focused on the use of the results to make team improvements and learning to shorten the improvement cycle from results to practice changes.
9. A demonstrated competence in the use of Lean principles- Nineteen sticky notes were categorized under this theme that can be divided into the following sub-themes: Team dedication to the Toyota Production System and Lean principles to improve their processes (1 idea), team understanding and proficient use of the kaizen tools (five ideas), and a demonstrated use of the principles in the daily work of the team (thirteen ideas).
10. Effective local leadership- Twenty sticky notes were generated that fall into this theme. Of the twenty, two notes had ideas that described system practices of selecting the right people in leadership positions and promoting from within the organization. Ten notes described the behaviors of the leader in a world-class patient centered team. These behaviors included using consistent methods of open and fearless communication, creative problem solving, attention to and feeling accountable for the health of care, establishing great relationship with team members, and understanding and observing flow. Eight of the sticky note ideas reflect the result of effective local leadership that includes a systems view, positive local conditions, employees who know what is

expected of them, well defined development plans for staff, the right team members assigned to the right roles.

11. Meaningful relationship with patients- Thirteen sticky notes rolled up to this theme. The basis of a meaningful relationship is really "knowing" the patient, not only as a member of a demographic of similar individuals, but also as an individual. This feeling was documented on three of the sticky notes. Four notes listed the ability to match or connect the patient with the right team. An additional four notes were similar in that they all identified standard communication methods with patients including active listening, using the right mode of communication, and articulating expectations. Two sticky notes are the results of the meaningful relationship and include high activation measures and understanding the needs of the patient after they leave.
12. Providing emphasis on planned care- Two sticky notes were dedicated to planned care and focus on the following: the majority of care is planned care vs. reactive care, and team members must be knowledgeable of community resources so that care can be coordinated.
13. The disciplined practice of visual daily management- Twelve notes were aligned under this theme. Four were associated with the team's usual capacity to do their work in a calm and orderly fashion. The other seven address the infrastructure to quantify and manage additional work that comes into the team. Within this area were notes for a daily manager, daily team huddles and daily management boards to make work visual, and a planned response to additional requests in order to do today's work today.
14. The ability of ready access for patients- there was only one sticky note for this topic and it became the theme.

15. Highly satisfied patients- Five sticky notes address satisfaction in the following areas: attention of aesthetics and beauty (1 note), real time patient feedback and service recovery (2 notes), quality defined as full customer satisfaction (1 notes), and satisfied patients (1 notes).

For a detailed listing of the content generated from the sticky notes please see Appendix 2: Brainstorming and Sorting List.

A formal review and validation of the themes revealed that these themes were indeed our list of world-class patient centered team characteristics, but they needed further development. All data within each theme from the affinity sort was reviewed, reduced to an operational definition, and displayed in a list of fifteen world-class patient centered team characteristics. The following was an example of a characteristic and the original associated definition:

An obsession for safety of patients and the team: proactive mistake-proofing of processes to minimize or eliminate harm for patients and employees.

The characteristics and operational definitions were refined by this author over a period of five months. Two of the fifteen characteristics were re-named to better reflect the intention or spirit of the characteristic. The characteristics that were re-named are listed in table 1 below:

Table 1: Renamed PCT Characteristics

Original Title	New Title
03. Playing well with others	03. Understanding that they are part of a larger system
06. By the way they plan and set goals	06. Systematic and deliberate planning and goal setting

Eight of the fifteen operational definitions were re-written by this author following in-depth review and additional data collection, data display, and conclusions drawn from this work. A complete list of all characteristics and operational definitions is in Figure 1, World Class Patient Centered Team Characteristics.

Figure 1: World-Class Patient Centered Team Characteristics

WORLD-CLASS PATIENT-CENTERED TEAMS ARE CHARACTERIZED BY…

01. An obsession for safety of patients and the team
Teams continuously look for opportunities and proactively mistake-proof processes to minimize or eliminate harm for patients and employees.

02. Doing what is right for the patient
Teams strive to meet all patient needs based on the patient's values and goals: caring, education, service, listening, and dignity – we treat our patients like family. Competing priorities are resolved in favor of the patient

03. Understanding that they are part of a larger system
Teams have a systems view of the organization. They recognize their interdependence within the larger system by connecting with suppliers and customers and perfect handoffs. They also realize their potential impact on other system components by the decisions and actions that they take. Their roles, responsibilities, and contributions reflect their shared commitment to the patient.

04. Optimizing Value (for patient and organization)
Teams understand the economics of the high frequency/high impact services they provide; cost and value* to the patient; and the financial impact to the organization. Teams have access to financial information in support of timely decision-making, by the patient and the team.
** Value = (Outcome + Experience) / (Time + Cost)*

05. Cultivated team excellence
Individuals who work together take time to become a team. Teams take time to become better teams. Teams are characterized by trust, constructive conflict, commitment, accountability, achievements, and joy and pride in their accomplishments. Team members understand how their team contributes to the patients' experience. Team members are respected as individuals, and for how their skills, perspectives, and positive attitude contribute to the team. All continuously improve their skills and knowledge.

06. Systematic and deliberate planning and goal setting
Team goals and measures reflect organizational, team, and patient needs and are well understood by all team members. Plans are in place to actively manage behaviors, processes, projects, etc. so the team always knows their progress towards goal attainment.

07. Effective use of tools and systems
Teams consistently use or identify the need for tools and systems that enable point of care process and decision support in their daily work. This use results in efficient and effective team based patient care.

08. The use of data to improve outcomes
Measures relevant to the team's performance and effectiveness (in meeting patient needs for high quality and high value), as well as patient outcomes are known, understood, owned, visible, and in an actionable format. Data are collected continuously as part of service and care processes and are used to guide actions and improve performance.

09. A demonstrated competence in the use of Lean principles
The concepts and tools of the Park Nicollet System of Care are evident in the management and continuous improvement of the processes and services provided by the team.

10. Effective local leadership
Team leaders create and continuously improve local conditions that encourage initiative, ownership of team performance, open communication, and confidence in their ability to succeed.

11. Meaningful relationships with patients
Teams cultivate relationships and meet patients "where they are" to support and facilitate self-management in pursuit of their personal health goals. These relationships result in significance learning and impact in their personal and work life.

12. Providing emphasis on planned care
Teams have intentionally migrated from a model that all too often focuses on acute, episodic, reactive care, to planned care. Patient risk factors and known medical problems are evaluated to anticipate and mitigate future problems and needs. This includes planning care across the entire continuum and use of community resources.

13. The disciplined practice of visual daily management
Teams work together every day to anticipate and resolve patient requests. The work environment is calm, orderly, and current – doing today's work today.

14. The availability of ready access for patients
Patients receive the help they want (and need), exactly when they want and need it and are very satisfied with the team member who helped them.

15. Highly satisfied patients
In addition to quality and value of care received, a caring experience requires attention to the environment, behaviors, relationships, and "details" that matter to patients. Teams seek constant timely feedback – responding with service recovery and through planned, systematic improvement.

Note: The Leadership Fellows groups realized that some of these characteristics were very similar in title and content and intertwine one another. After discussion, debate, and testing through interrelationship diagraph exercises, we continue to believe that there is enough distinction between the characteristics to keep them separated.

Interrelationship Diagraph Results

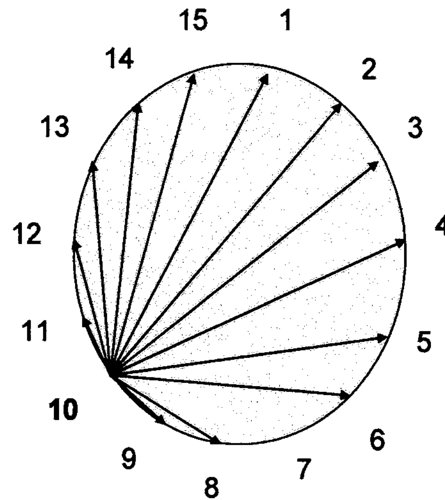
In an effort to understand the patterns and connections between the PCT characteristics, interrelationship diagraphing was completed over a series of meetings held between January and March 2008. The outcome of this exercise was to understand and conclude which characteristics were the foundational team characteristics and must be developed before the receiving characteristics could be addressed. The process that was used to understand the relationship between the fifteen PCT characteristics is described below:

- A large circle was drawn on butcher paper and the circle was labeled clockwise with the number and title of each of the PCT characteristics written on sticky note paper.
- A characteristic name and definition was read and compared with another characteristic. The question "Do you need Characteristic A (for example, Effective Local Leadership) in place before Characteristic B?" (for example, The disciplined use of Daily Management) If so, an arrow was drawn from A to B. This process continued until all characteristics were compared.
- Once this process was done, it was repeated to ensure that all decisions related to the PCT relationships were accurate.

Figure 2 is depiction of the drawing that resulted from the exercise for the characteristic "Effective Local Leadership." Figure 3 is a depiction of the drawing that resulted from the exercise for the characteristic "Highly Satisfied Patients." The main difference between these two drawings is the direction of the arrow, or the understanding of the foundational vs. receiving characteristics.

Figure 2: Interrelationship Diagram for "Effective Local Leadership"

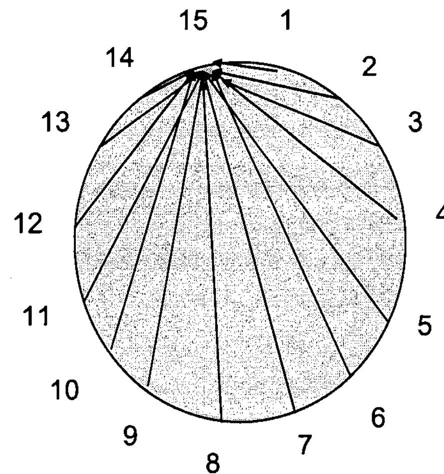
Interrelationship Diagram for the Characteristic, "Effective Local Leadership"



10. Effective Local Leadership- This characteristic is a *driver* as Effective Local leadership must be in place in order to make the other characteristics possible.

Figure 3: Interrelationship Diagram for "Highly Satisfied Patients"

Interrelationship Diagram for the Characteristic
"Highly Satisfied Patients"



15. Highly Satisfied Patients- This characteristic is a *receiver* as Highly Satisfied Patients are a result of the other characteristics being fully incorporated in the work and behaviors of the team.

The final drawing displaying all arrows in or out of each characteristic resembled a spirograph and was difficult to explain to others, therefore, a table documenting the interrelationships was constructed. This table is displayed as Table 2: Interrelationship Diagraph Ins and Outs Chart.

Table 2: INTERRELATIONSHIP DIGRAPH INS AND OUTS CHART

World-Class patient-centered teams are characterized by . . . Concept	Item #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total Arrows Out (+)	Total Arrows In (-)	Net =
An obsession for safety of patients and the team	1	**0**	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	2	12	**-10**
Doing what is right for the patient	2	-1	**0**	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	1	13	**-12**
Understanding that they are part of a larger system	3	1	1	**0**	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	1	1	5	9	**-4**
Optimizing value (for patient and organization)	4	1	1	1	**0**	-1	-1	-1	-1	-1	-1	1	1	-1	1	1	7	7	**0**
Cultivated team excellence	5	1	1	1	1	**0**	-1	-1	-1	-1	-1	1	1	-1	1	1	8	6	**2**
Systematic and deliberate planning and goal setting	6	1	1	1	1	1	**0**	1	1	1	-1	1	1	1	1	1	13	1	**12**
Effective use of tools and systems	7	1	1	1	1	1	-1	**0**	1	-1	-1	1	1	-1	1	1	10	4	**6**
The use of data to improve outcomes	8	1	1	1	1	1	-1	-1	**0**	-1	-1	1	1	-1	1	1	9	5	**4**
A demonstrated competence in the use of Lean principles	9	1	1	1	1	1	-1	1	1	**0**	-1	1	1	1	1	1	12	2	**10**
Effective local leadership	10	1	1	1	1	1	1	1	1	1	**0**	1	1	1	1	1	14	0	**14**
Meaningful relationships with patients	11	1	1	-1	-1	-1	-1	-1	-1	-1	-1	**0**	-1	-1	-1	1	3	11	**-8**
Providing emphasis on planned care	12	1	1	1	-1	-1	-1	-1	-1	-1	-1	1	**0**	-1	1	1	6	8	**-2**
The disciplined practice of visual daily management	13	1	1	1	1	1	-1	1	1	-1	-1	1	1	**0**	1	1	11	3	**8**
The availability of ready access for patients	14	1	1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	**0**	1	4	10	**-6**
Highly satisfied patients	15	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	**0**	0	14	**-14**
	Totals	10	12	4	0	-2	-12	-6	-4	-10	-14	8	2	-8	6	14			

Meaning of numbers:

0 = featured characteristic

1 = arrow drawn out; characteristic must be in place for the other characterisic to be developed

-1 = arrow drawn into; this characterisic is a receiver or the result of other developed characteristics

Items with the largest positive quanties in the "Net" column are CORE DRIVERS (shine the spotlight on other elements)

Items with the largest negative quanties in the "Net" column are key RESULTS (have the spotlight on them)

Conclusions drawn from this exercise were the following:

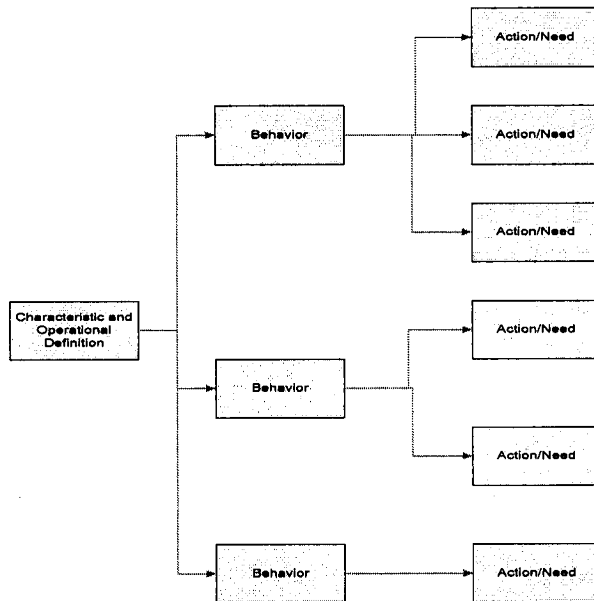
- Of the fifteen characteristics, seven were considered drivers, or those characteristics that needed to be in place for the other characteristics to be realized or developed. These driving characteristics were:
    - Effective Local Leadership
    - Systematic and Deliberate Planning and Goal Setting
    - A Demonstrated Competence in the use of Lean Principles
    - The Disciplined Practice of Visual Daily Management
    - Effective Use of Tools and Systems
    - The use of Data to Improve Outcomes
    - Cultivated Team Excellence
- Two characteristics were identified as "spotlight characteristics," or those characteristics that truly reflect the outcome of all other characteristics and represents the organization goal regarding teams. These two characteristics were: "Doing what is right for the patient", and "Highly satisfied patients."
- If we focused training on the driving characteristics, a strong world-class patient centered team foundation could be created.

Tree Diagramming

To understand what specific curriculum content is required, skills that need to be developed, tasks that need to be assigned to teams, or actions that need to occur to develop the team characteristics, this author created tree diagrams for the seven foundational characteristics. On each tree diagram, the team characteristic and operational definition is documented on the

left side of the diagram. "Branches" flow to the right and include specific behaviors that would be seen by team members if the characteristic was fully developed. Additional "branches" list the detailed action or need to be included in a training curriculum. A sample tree breakdown is in Figure 4 below:

Figure 4: Sample Tree Diagram



To view the complete series of tree diagrams for the seven foundational characteristics, please see Figures 5-11.

Figure 5: Tree Diagram for Effective Local Leadership

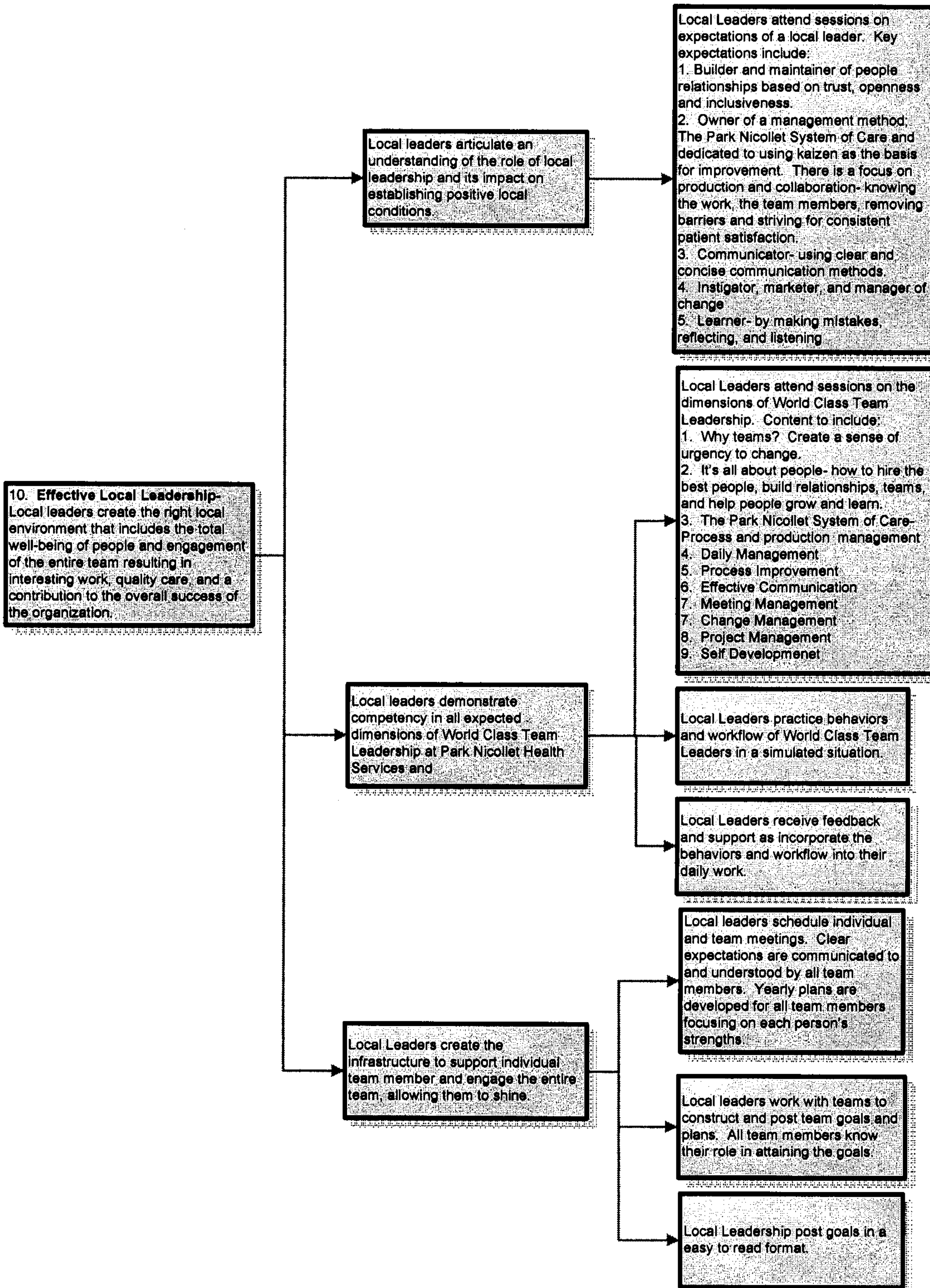


Figure 6: Tree Diagram for Systematic and Deliberate Planning and Goal Setting

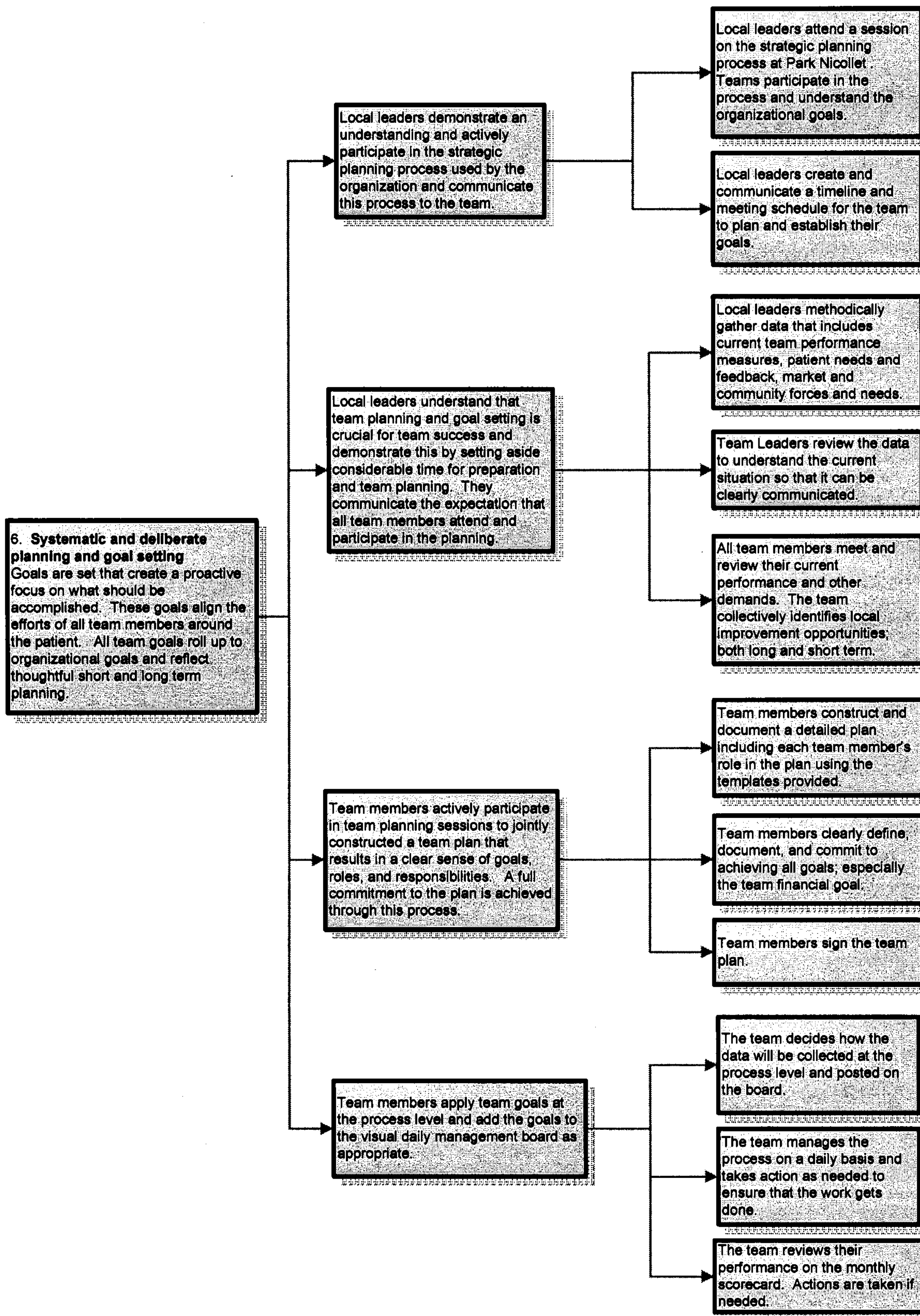


Figure 7: Tree Diagram for A Demonstrated Competence in the use of Lean Principles

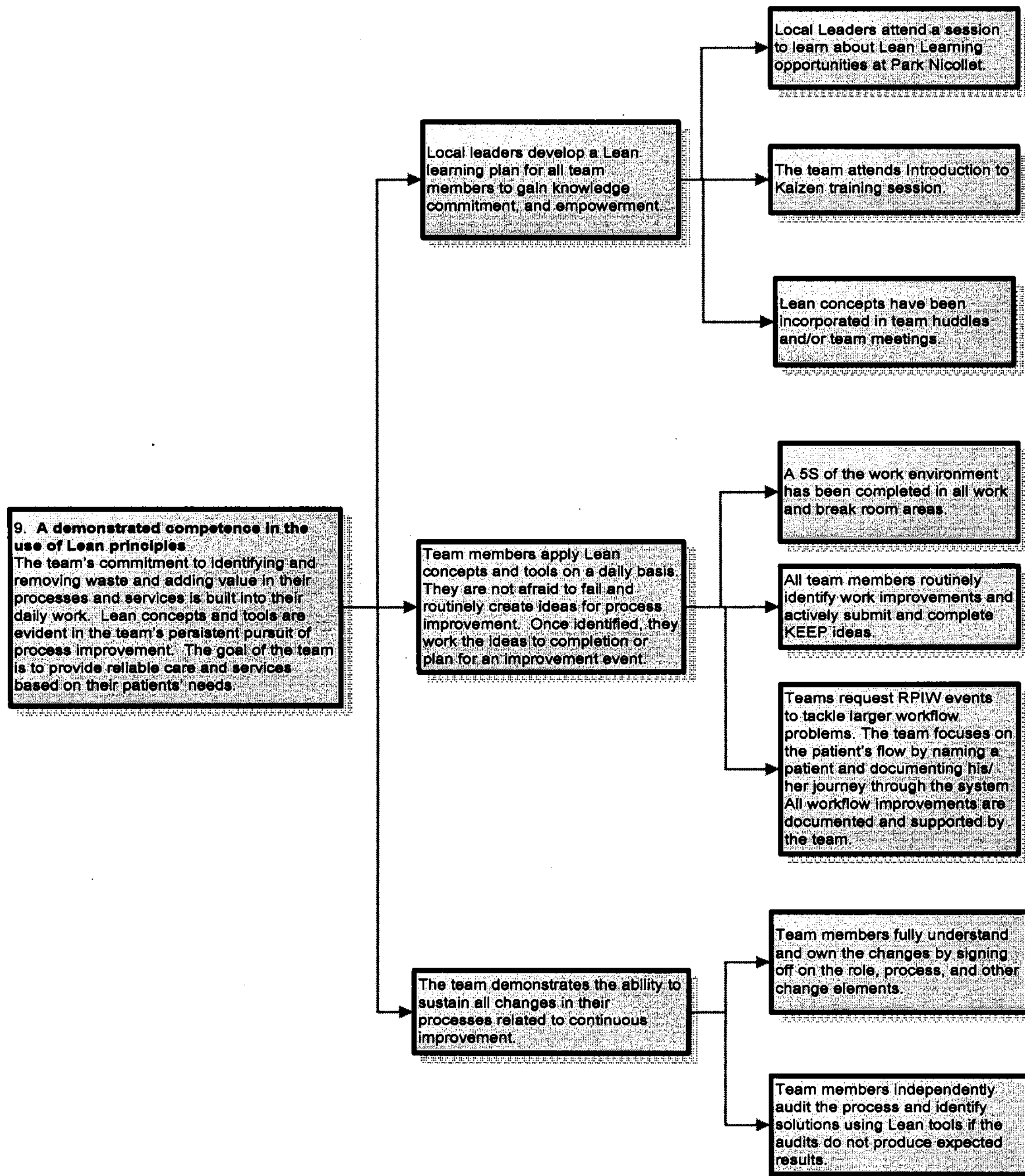


Figure 8: Tree Diagram for the Disciplined Practice of Visual Daily Management

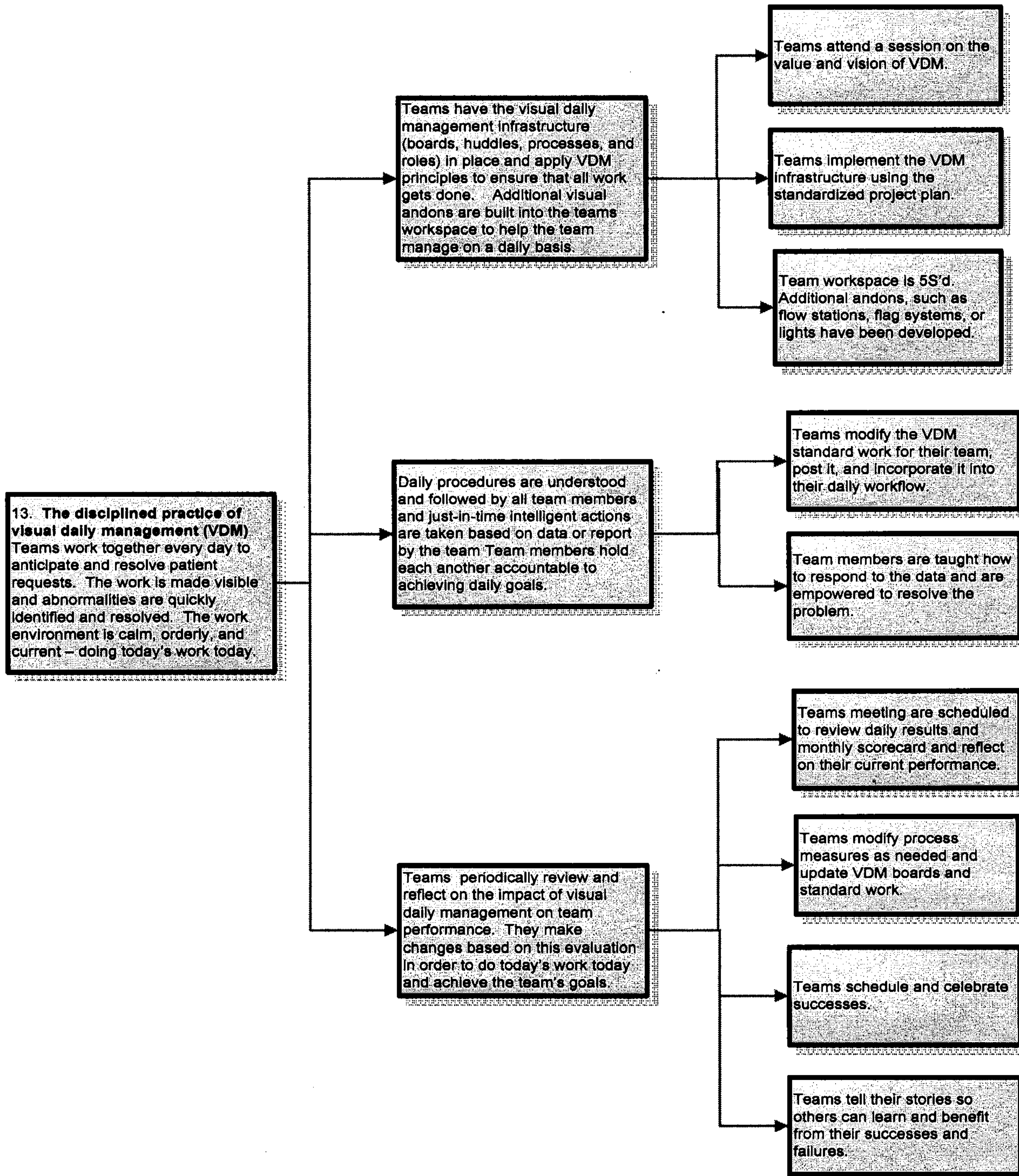


Figure 9: Tree Diagram for Effective use of Tools and Systems

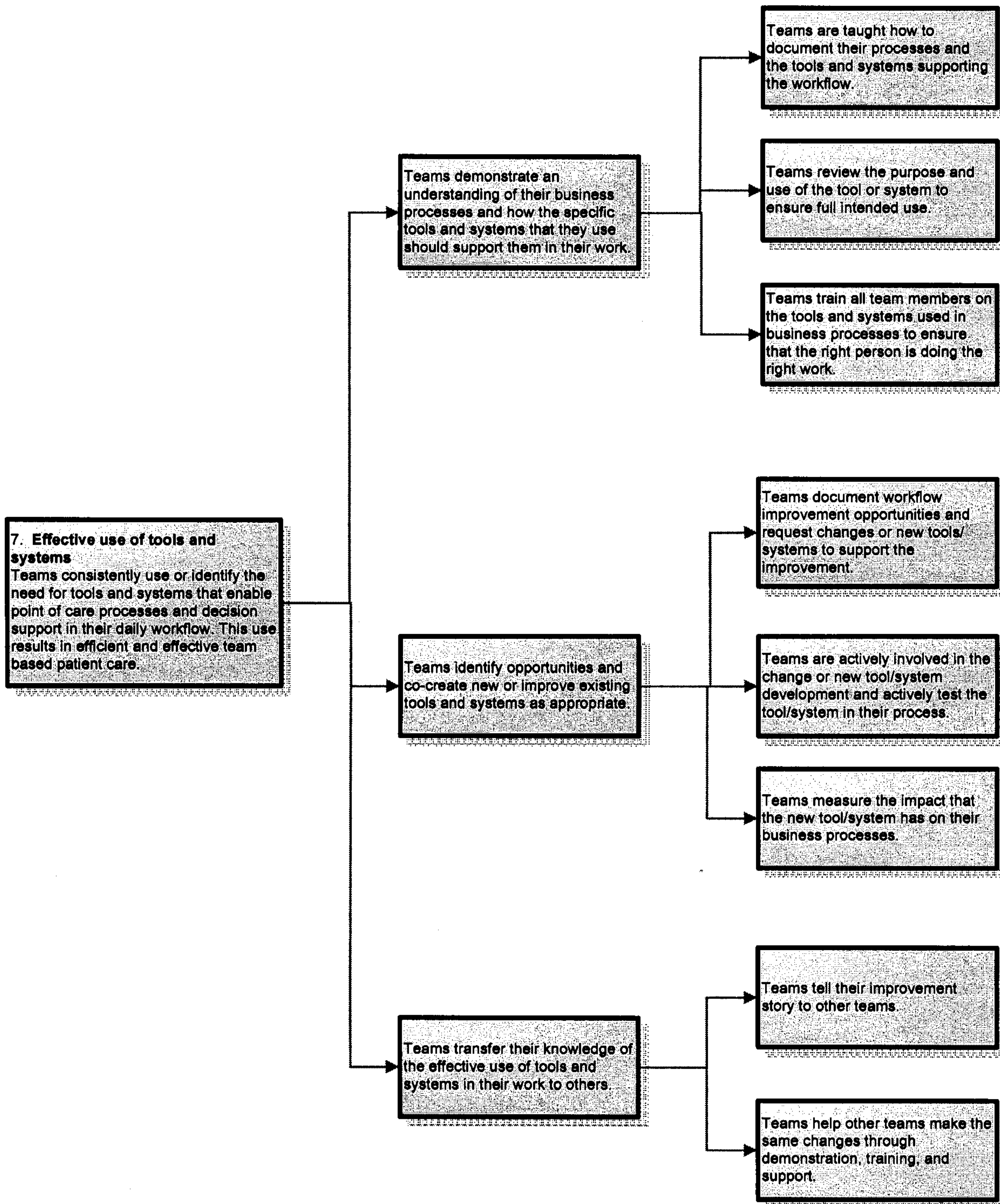


Figure 10: Tree Diagram for the Use of Data to Improve Outcomes

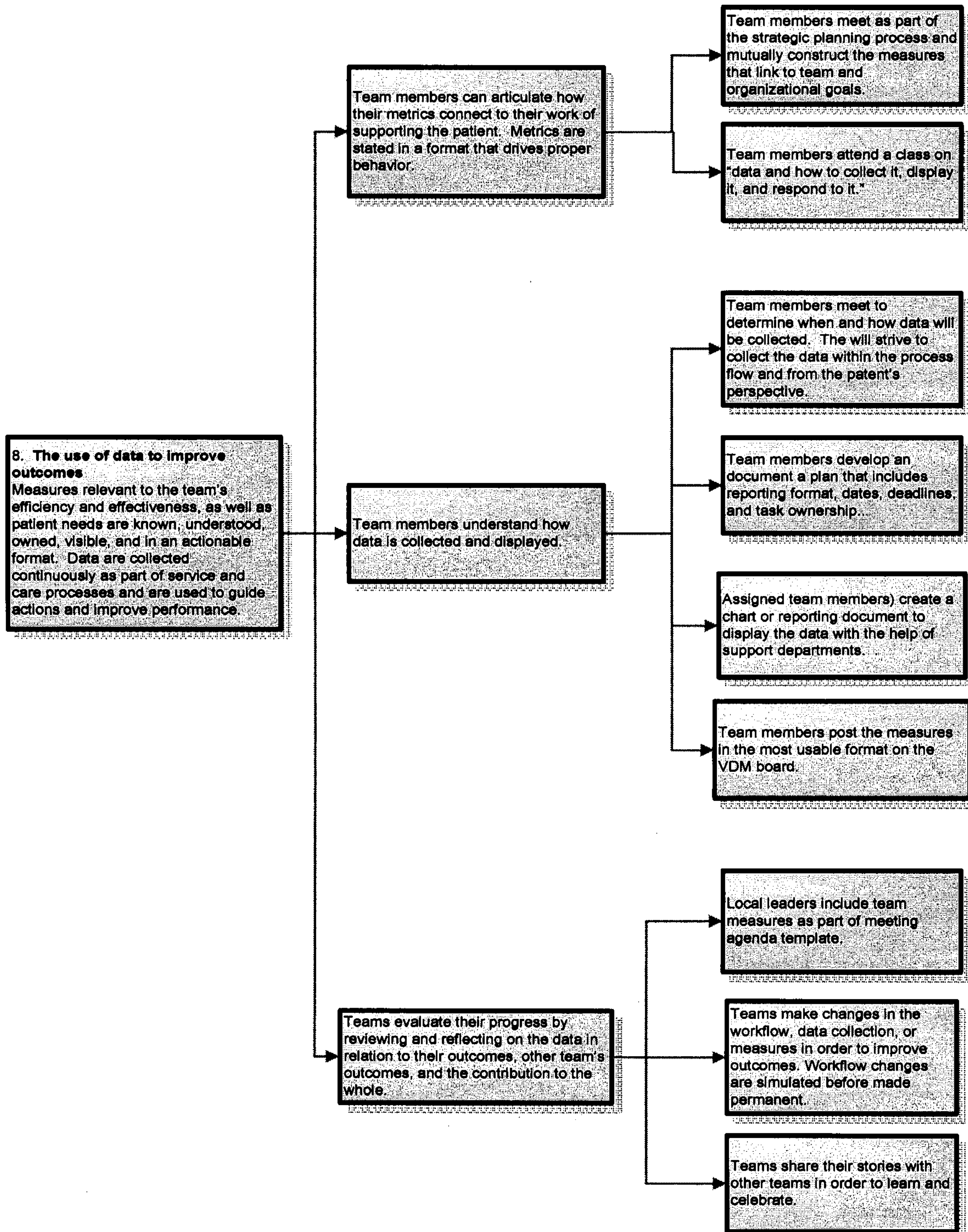
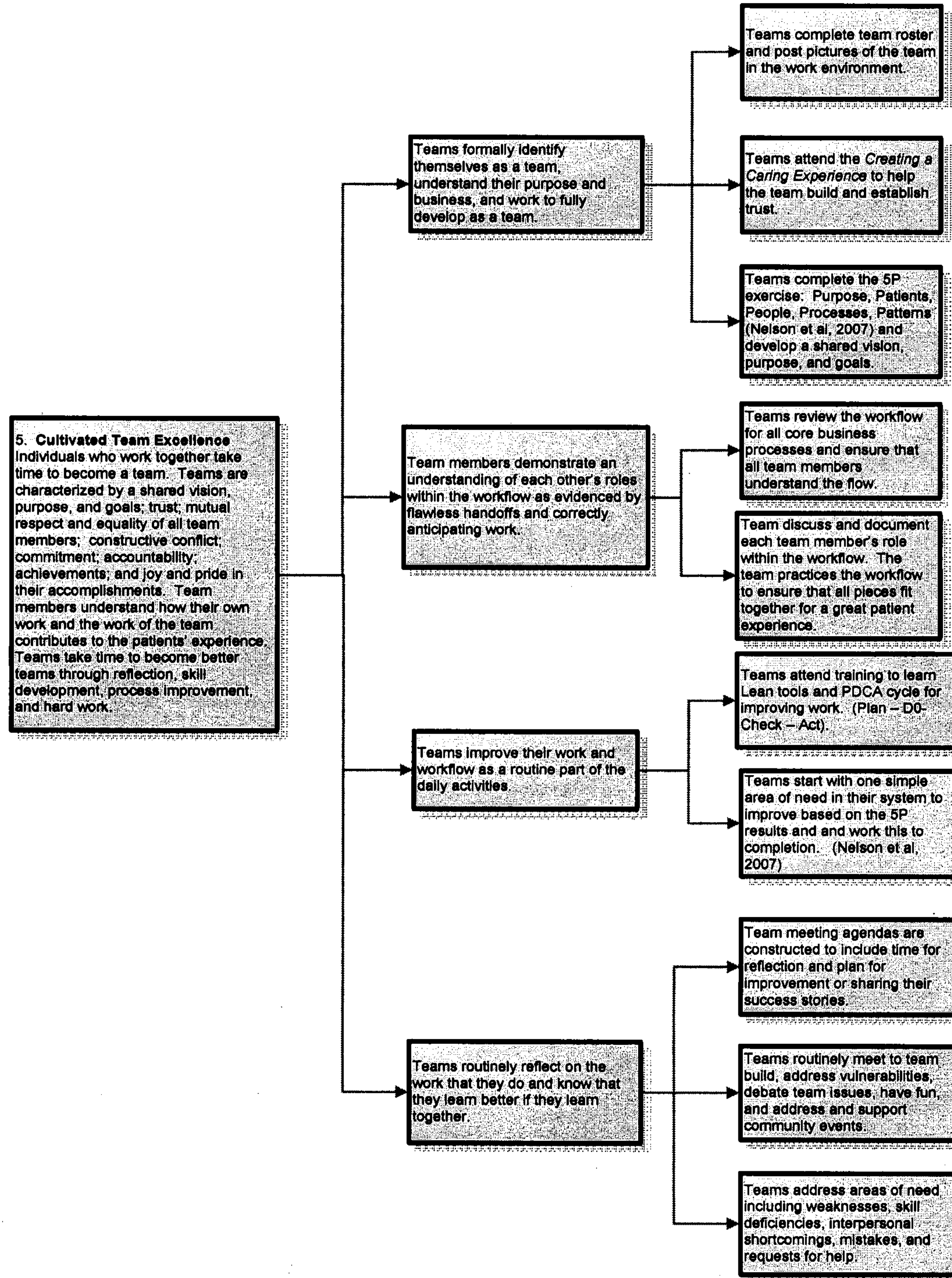


Figure 11: Tree Diagram for Cultivated Team Excellence



Identifying the Key Curriculum Elements

For the seven foundational characteristics, sixty-two actions were created on the tree diagrams. These actions were combined into one list. An affinity sort was completed on the items in order to review all items, eliminate duplicates, and to categorize the sixty-two actions into six common groupings. After careful study, this author named each grouping to reflect the overall content of the curriculum elements. The six training modules are: Forming and Building a Team; Developing Local Leadership for the Patient Centered Team; Planning for Team Success; Establishing and Perfecting Core Processes and Standards of Excellence; Delivering Care when and where it is needed; and Reflecting, Learning, and Continuous Improvement.

The content for each module reflects the key elements that need to be included in the curriculum for building world-class patient centered teams. Each module will be described below and will include the intended audience, the key curriculum elements, and suggested assignments or content. The content of each module will also be linked to one or more of the five themes on teams identified from this author's literature review listed on pages 16 and 17.

Some of the content described in the modules is already in existence at Park Nicollet and some has been identified from this research. At this time, this author does not have any preference for the mode of training and realizes that many teams will learn differently, therefore the build and delivery of the curriculum will need to include a variety of learning methods.

Forming and Building a Team

Forming and building a team is the first step in developing a team. Whether a group of people presently work together or are newly joined together, there are actions that need to happen for team identity to occur. This curriculum module includes the following key elements:

creating a team identity, building a team, and building an organized work environment. All team members must learn this content together in a variety of settings.

In order for team identify to occur, there must be a team roster and a team picture taken and posted. This action confirms that the group of people who have come together has identified themselves as one team. This step is not a normal process in health care. Usually, the physician role is the only one that is listed and pictured in waiting rooms, in brochures, or on the internet.

After the team has been formally identified, the team must meet together and understand the following 5 Ps that have been developed by Nelson et al (2007):

- Their purpose- what is the reason that the team exists?
- The people and the roles that make up the team- who are the people that make up the team and what do they do?
- The patients who will come to the team for care, specifically, what are the ages of the patients and what kinds of chronic diseases do they have?
- The processes that they will repeatedly perform and rely on in order to be efficient and effective. Examples of processes that fall in this category include patient check in, patient rooming, patient check out, and test result reconciliation.
- And the patterns of their business. Is there seasonality or busier times throughout the year that is due to the patient population or needs? How should the team respond to this?

A good exercise to complete this understanding is the 5P exercise created by Nelson et al (2007). This exercise includes directions and supporting tools that will help a team get a big picture of their practice. This is not a quick exercise and the team must create a timeline to get it done. Individual team meetings to address the content are an effective way for this

understanding to occur. Group facilitation may be required of some teams while the leader is learning to be a leader.

The newly formed team must also start to build relationships. Park Nicollet has an existing series of learning modules titled "Creating a Caring Experience." Of great importance is module two, "Realizing the Power of your Team," and is based on the Lencioni pyramid (Lencioni, 2002). Attending this session as a team will help the team understand the importance of gaining trust with one another and this in turn will help the team be able to address conflict, gain commitment, share accountability, and see the results of their work (Lencioni, 2002).

An additional assignment for the team is to build an organized work environment. A 5S exercise (a Lean tool that consists of sorting, simplifying, standardizing, sweeping, and self discipline) or group session where the work environment is cleaned and standardized is a good way to build the team and create a stress free environment (Black, 2008, p. 53-54). One way to enhance the work environment is to create andons or signals so that team members can quickly understand the status of a patient or piece of equipment. A good example of an andon is the detailed use of exam room flags. Teams can determine what each flag means and label them so that anyone can understand what a flag means when it is turned out.

The key curriculum elements in this module can be linked to two of the five themes identified in this author's literature review: effective teams need a common goal or reason for existence and team interdependency is a key feature to getting the work done. Building a team and purposefully completing the exercises in this module will help teams identify as one group who are working together for a common goal. Working together means that each team member fully understands his/her role and how his/her role contributes to team success.

Developing Local Leadership for the Patient Centered Team

The learning content and objectives within this module is for the identified leader or leaders of the team. All local leaders of a care team need the knowledge and skills to be successful. A variety of learning methods including classroom, computer, one on one practice and feedback sessions would be required to effectively transfer knowledge and ensure that the knowledge is put into practical use. Mentors are suggested as a method of providing leaders a resource to refer to and learn from along the way. The key curriculum elements for this module include an extensive list of knowledge packets including:

- Understanding the expectations of local leadership at Park Nicollet: this includes the expected roles as a builder and maintainer of people relationships based on trust, safety, openness, and inclusion; an owner of the Park Nicollet System of Care (the management system of Park Nicollet); a great communicator; an instigator of change; and a learner.
- Understanding, learning, and developing leadership skills that include the following content:
    - Relationship building- why it is so important to building a solid team, how to build relationships, and how to maintain relationships.
    - The Park Nicollet System of Care- what it is and how to apply the management system into daily practice.
    - Daily management- what it is, and how to implement it, and how to use data on a daily basis to manage work.
    - Process management- what does this mean, how to determine the health of a process, and methods for improvement.

- Effective communication- what is effective communication, how to develop consistent and repeated messages, how to actively listen, and how to give feedback.
- Meeting management- how to create meeting agendas and how to hold effective meetings.
- Change management- what is change management, how to address change, the emotional aspects of change, preparing for change, and dealing with resisters.
- Project management- what is project management, how to create and execute basic projects, and how to identify issues and mitigating strategies to keep projects on track.
- The power of reflection for leaders- what is reflection, how to reflect as an individual and leader of a team, and how to use reflection to improve care.
- Self development- how to establish personal leadership goals and identify needs for improvement.

At the start of this module each leader would complete a leadership assessment to understand the baseline knowledge of the leader and to tailor the content based on his/her level of expertise.

Additional components of this module are the application of the skills that have been learned and real time feedback to the leader. In order for the leader to practice the newly learned skills, a simulated environment will need to be created along with an instructor, mentor, and/or team member actors to listen and give feedback to the leader based on what was heard. One specific area to practice is effectively articulating expectations with team members. This was a key learning from travel and a key component to staff motivation.

All of the themes of effective teams from the literature review link to the key curriculum elements for developing local leaders. Leaders can make or break teams. They must drive teams towards a common goal and help all team members understand why they exist. Leaders are crucial to helping teams understand how the work must get done and how each person contributes to the process and outcomes of the team. In order for teams to be effective, the local leader must have competent team members and is required to ensure that competency is demonstrated. All along the way, the local leader must provide support and recognize the work that the team is doing.

Planning for Team Success

This module includes five key elements and is intended for the leader. The first element in this module is an explanation and understanding of the strategic planning process at Park Nicollet. Along with the explanation of the planning process is the need for the leader to understand his/her role in the process as well as the dissemination of information to the team. The second key element of this module is a training session on how to develop team goals and plans that are based on the organizational goals. Included in the curriculum will be:

- Understanding the team's current state- an explanation on how to obtain baseline data, including resources to help teams.
- Identifying the desired future state- a didactic session on how to construct or wordsmith a goal, including a reasonable or stretch numeric value, such as, "improve x by y in z time." Sample case studies or real examples would be used to help leaders practice writing a goal.

- Establishing goals as a team- how leaders can effectively present data and create a platform for change.
- Creating plan to meet established goals- a review of improvement options and how to determine the best method for improvement.

The third key element in this module is teaching the leader how to effectively collect, display, and respond to data as a team. Detail on data collection options such as computer generated reports, stick tallies, and direct audits should be included. The difference between run charts and control charts will be covered along with the topic of understanding variation.

The fourth key element in the Planning for Team Success module is focused on effective meetings. Creating an effective meeting infrastructure for the team includes:

- How to schedule meetings- specifically how to determine the number and type of meeting to have throughout the year.
- How to create a meeting agenda that includes agenda items that are based on team goals and progress towards plans.
- How to conduct an effective meeting- this includes understanding group dynamics, decision making, time keeping, and documentation of meeting minutes.

Creating a culture of team empowerment is the last component of this module. Leaders will need to understand what empowerment is and how to cultivate it. Leaders will also need to understand decentralized decision making and the merits and challenges that go along with this style.

Once the leader has completed the key elements in this module, he/she will need to teach the team what has been learned as well as practice the new skills. During this time, the leader may need the assistance of a support person or mentor to check draft goals constructed by the

team, charts created by the team, draft meeting agendas, and/or any item that comes up requiring a second look by another leader.

All of these curriculum elements support the five common themes that were identified from the literature review. The local leader will help the team to develop goals and become a results driven team by collecting, displaying, and responding to data. When a team is involved in effective meetings and empowered to do what is needed for the patient, teams become interdependent and competent in many different areas. It is the local leader who has the ability to create the environment and culture that fosters the development of a highly productive world-class patient centered team.

Establishing and Perfecting Core Processes and Standards of Excellence

Hackman (1990) concluded from his research that teams have their own time and rhythm and they respond well when they understand limits and deadlines. Rhythm is established through standard work cycles or repetitive processes. To establish a rhythm, teams need to understand their processes, document them, and practice the work cycles so that daily work is understood and team members know what and when to do a task or action. This module, "Establishing and Perfecting Core Processes and Standards of Excellence" focuses on this need. Within this module are three elements and they are all intended for the team as a whole. The first element is learning about a resource that Park Nicollet has to develop or practice standard work cycles or new cycles of work. This room, called the Moonshine Room, is centrally located within the Park Nicollet system. This room is a place for teams to simulate processes using mocked up work spaces. Teams need to learn the process to reserve the room as well as understand how to use the room and supplies available for teams.

Next, teams must understand how to document their core processes and role responsibilities from various vantage points. Core business processes are those processes that are done multiple times each day. Examples of core business processes are: checking in patients, rooming patients, the clinician visit, the check out process, the results reconciliation process, and the prescription refill process. Value stream mapping or documenting high level process flows from the patient's point of view must be a skill of all team members. Included in the value stream mapping exercise is the need to understand the following and is already available at Park Nicollet:

- Cycle time or how long it takes to complete a process step.
- Wait times for patients.
- Patient handoffs to other teams.
- The concepts of value added vs. non-value added time for patients
- How to identify and document opportunities for improvement.

In addition to value stream mapping is the need to understand standards of excellence or best practices that are used within a process, or how to create and document new standard work.

The final element in this module is practicing core business processes. This component will take place in the Moonshine Room to review current flows that are causing concern for teams or to practice new flows in a simulated environment. This practice environment allows all team members to observe the flow, determine the best role to do each step, and understand barriers that may arise. Team facilitation will be required as the team first learns how to use the room and practice flows to get the most out of the session.

The content in this team development module links to three of the five literature themes on teams. These links are related to team interdependency, competency, and a results driven

focus: Understanding, documenting, and practicing core processes enable teams to understand their interdependency in order to meet patient's needs. Inherent in this understanding is the role that each team member plays in the process and the type and level of competency needed. Within the processes are standards of excellence that the need to collect data to continually check the team's effectiveness.

Delivering Care when and where it is needed

The spirit of this module is to help teams understand what is needed as they go about their daily routine or deliver care during the clinic day or hospital shift. Two key elements that will be taught in this module are visual daily management (VDM) and the stop the line process. VDM is a method of quantifying work that needs to be completed that day and requires an infrastructure to make it happen. This infrastructure, already established at Park Nicollet, includes a board, a process, and three defined roles including a board keeper, team member, and clinic flow coordinator. Additionally, team huddles are a part of visual daily management. The purpose of team huddles and how to conduct team huddles will be covered in this module. Two other components, how to use VDM to manage daily work including real team time adjustments, as well as using VDM to track progress towards goals will also be included in the educational content. These last two components will require an educational session for teams to learn the content and real time support for teams as they use their data to make decisions.

The stop the line process is a process that empowers any team member to stop the work when a problem has been identified. The local leader and available team members must respond to a stop the line alert, review the situation, resolve the problem, and then resume work. This process is very important in order to maintain patient and team safety and quality. Teams will

need to understand this process, when to invoke the process and why this process is needed to maintain safe and high quality care. All team members will need to feel that they can authorize any stop the line process so that mistakes are not passed on or an unsafe situation is not addressed. Inherent in this process is total trust and respect by all team members which must be addressed in this learning module. Additionally, teams will need to practice the stop the line process so that when the time comes, team members will know what to do. Practicing for certain situations is not a new concept for care teams. Teams frequently practice how they respond to code blues (cardiac arrest) and inclement weather situations and this experience will help them with this new stop the line process.

The content in this module links with all of the common themes from this author's literature review. Both of these important processes, Visual Daily Management (VDM) and the stop the line process support the purpose of the team- to deliver safe and high quality care to all patients. These tools help to quantify the work in order to deliver the care expected for that day and a built-in check when there is a defect or unsafe situation. Teams will need to be constantly aware of expected results so that they can respond when results are not as expected. As stated above, VDM and the stop the line process require full trust, interdependency of team members, fully competent team members, as well as organizational support in order for the team to be comfortable quantifying work, moving work from one team member to another, and questioning fellow team members when defects are suspected.

Team Reflection, Learning, and Continuous Improvement

The four key curriculum elements of this module are the power of team reflection, storytelling, continuous improvement methodologies, and responding to data on a daily, weekly,

and monthly basis. The power of reflection was a key learning from travel and a routine practice of many of the world-class teams that the Leadership Fellows visited. Included in the learning content about reflection should be: what is reflection, the purpose and goal of reflection, the types, principles, and timing of reflection, and the role of the leader in team reflection. The result of reflection is learning and continual improvement.

When teams reflect, they may change what they do to prevent an action from ever occurring again or celebrate in the achievements that they have made. These learning cycles can become stories for teams to share. Storytelling is the next key element in this module. In order to help teams develop their storytelling skills, they first must understand what storytelling is and how it can help them. Teams must also be able to construct and tell a good story. Lastly, they must have assistance from the local leaders to practice storytelling in order to hone in on this valuable skill. Storytelling could start within the team, for example dedicating time to tell stories at team meetings, and then expand this practice to include other teams as they get more comfortable developing this skill. This module will cover all of the components.

Teams need to understand how to continuously improve. Continuous improvement methodologies will be explained and taught in this module in order for teams to use these tools in the appropriate situation. Included in the methodologies will be detailed training sessions on Lean principles and tools that are already in existence at Park Nicollet as well as the Plan-Do-Check-Act or Deming Cycle (Nelson et al, 2007). The concept of understanding variation that was included in the **Planning for Team Success** module will be reinforced in this module so that teams can apply this understanding to their continuous improvement activities. A learning from travel, that being the use of fictitious patients to document and improve processes and patient flow will be reinforced and practiced in this module.

The last key element in this module is the ability for teams to respond to data, be it daily, weekly, or monthly data points. Within this module will be an explanation and training session on how to take goals and break them down into actionable elements using a real PN team example. Additionally, team members will need to understand what types of actions should be done based on the data that is reviewed.

All of this content links to the five literature review themes identified early on in this research. Reflection, storytelling, continuous improvement, and responding to data all connect to helping a team meet a common goal or reinforce why they exist. Learning from past experiences reinforces team interdependency and a realization of the competency needed to provide high quality care. Data drives continuous improvement to meet the team's identified goal and teams will be recognized and supported by leadership and the organization when telling of their stories of success and failures.

For a listing of all of the module content described above, including the key curriculum elements in table form please refer to Appendix 3: Team Development Modules with Associated Key Curriculum Elements.

Recommendations and Next Steps

To make the radical changes in how care is delivered at Park Nicollet, senior leaders will need to be prepared to focus their time and attention creating and developing world-class patient centered teams. This will require support at both the system and team level.

From a system perspective, the following is needed:

- A well articulated vision and multi-year strategic plan focused on team development. As this author learned from the world-class companies that she visited, a consistent vision and plan helps the people in the organization understand where they are going; rally around a cause; and gives the organization time to make the necessary radical changes. A key component of this vision is a clear definition of a team.
- A clearly defined project plan focusing on the goal of developing teams at PN. A project plan, managed by an experienced project manager, will identify the tasks and resources needed to develop world-class patient centered teams within a defined timeframe. A steering team whose purpose is to guide the project and help with barriers must be identified. A pre-defined schedule of meetings must be established to review progress of the plan, review issues that have been documented, and eliminate barriers.
- A continued commitment to the Toyota Production System (aka The Park Nicollet System of Care). This management method, based on just-in-time production, mistake proofing, and the reduction of waste in processes has proven to transform manufacturing companies. The concepts within the Toyota Production System can also be an effective system to transform health care, but requires patience, discipline, and persistence as teams make incremental change.

- A focus on patient flow and full support of the stop the line process. All senior leaders must change their job to include observing, maintaining, or improving flow and flawless handoffs throughout the organization. This means supporting any and all team members when quality or safety is questioned, respond to line stoppages that require their involvement, and address all issues associated with the line stoppage.
- A change in the culture that focuses on teams rather than physicians. This will require different methods of rewarding teams that include team bonuses, the creation of team scheduling, policy modifications, and changes in other infrastructure that divides teams, such as eliminating physician lunchroom facilities. This author also suggests that PN senior leadership develop a team compact that delineates all expected behaviors from team members. This compact should be clearly explained to all teams by senior leaders and signed by all team members.
- A detailed review and refinement of the PN Leader expectations. The learning from this research resulted in new thoughts on what it means to be a leader. These changes include the concepts of process manager, owner of the Park Nicollet System of Care, and a builder and maintainer of people relationships. Along with these new concepts are new skills as well as new levels of skill development. All senior leaders must agree on the new leader expectations and put them in writing and actions.
- A commitment and reinforcement to everyone in the organization that the patient is the only customer and the team must understand this and do what is needed to meet patient requirements.
- A change in the definition of quality for our customer. Quality must be defined by the customer (the patient) and this also includes full customer satisfaction. Usually there is

only a focus on care quality as defined by others. Quality defined by the patient will ensure that we meet the patient's values and needs.

- The continued development and refinement of the "Moonshine Room" or other facilities and resources to practice team processes away from the actual care delivery. This will require capital resources to develop the facility and the necessary support for teams to use the room and learn from their practice sessions.
- The creation and support for an infrastructure so that teams can tell and document their stories. This may include facilities or opportunities to give large presentations or allow time for small team to team storytelling. Documenting stories will contribute to the history of PN and a resource experienced in storytelling would be of benefit to developing this new skill.

From a team perspective, the following is needed from senior leadership:

- Involvement in the development and implementation of the curriculum to develop world-class patient centered teams. This also means teaching and attending sessions so that a full understanding of the demands and needs of teams are understood.
- An understanding by senior leaders that teams are at varying levels in the change cycle. They need time, support (that includes the use of mentors and facilitators), and flexibility in meeting goals as long as goals are met by the end of the year. They also need to understand that teams will make mistakes, learn, and become better teams because of it.
- The resolution of barriers so that teams can do what is necessary to deliver care in the most effective manner. This may mean investment in software or other technology that will support teams or making policies flexible in order to meet patient's needs.

- The commitment to having the best people in local leadership positions. Local leaders are a crucial component to developing high performing teams. The right person must be in this role. Hiring practices will need to be changed so that only those leaders who have or will have the skills needed for world-class patient centered teams are selected. There will also need to be a review of existing leaders and subsequent removal or transfer of those leaders who do not fit the requirements of the new leadership role.

As a next step, this author will present this final project to the Leadership Fellows group and other interested groups working on team effectiveness or development at Park Nicollet. This author will then work with The Learning Center at Park Nicollet to create the actual curriculum modules based on the findings from this research. Due to the size of this project, a formal project plan would be developed that includes the tasks that need to be done and the specific resources necessary to help transform the teams to world class patient centered teams within a defined timeline. This author is suggesting that the curriculum be tested on a set of pilot teams that represent a variety of care teams at Park Nicollet, for example, a hospital team, a primary care team, and a specialty team. As part of the program a steering team will be created to help lead this effort as a whole. Key decisions and the creation of success criteria will be part of the responsibility of the steering team. Once the curriculum has been tested with a set of pilot teams, this author recommends that further study be done to determine the effectiveness of the curriculum on the development of world-class patient centered teams. The research would answer this question, "Do the key curriculum elements taught to teams result in high performing teams? Specifically, do the teams consistently demonstrate the behaviors delineated in the world- class patient centered team characteristics?"

It is the hope of this author that this research will help Park Nicollet make the necessary radical changes to become the leaders of the future. We must make the changes, or someone else will.

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Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Jönköping, Sweden County Council	Japan Superflow: multiple manufacturing plants and museums.	Virginia Mason Medical Center, Seattle Washington
History/ Background on journey to becoming a worldwide leader	• The council has a vision with a higher purpose: "For a good life in an attractive country." • They focus on the patient + 5 areas for learning + innovation. This produces results. • Their journey began with 1 hospital completing the Malcolm Baldridge Award application. Although the hospital did not win the award, the council began to systematically look at quality. • Each department within the hospital and clinics has targets that are expected to be reached by year end. • The government establishes national guidelines for care that they must follow. • Costs are controlled through quality. • They are financially stable with no debt.	• They too have mission/vision statements of a higher purpose. Examples of these statements are: Toyota: "Being studious and creative, striving to stay ahead of the times." Yamaha Piano factory: "Creating Kando (an enspired state of mind) together!" Yamaha Motors: "Our Future, Your Smile." Aisin-Niship Plant: "Consideration for Environment, Comfortable Work Place." Toyota Kaikan Plant: "Good Thinking, Good Products." Toyota Tsutsumi Plant: "Aiming for a better Earth Environment." Yamatake: "Realizing safety, comfort and fulfillment in people's lives, and contribution to the global environment through human-centered automation." Toyota Boshoku: "To make cars of the world more comfortable and more environmentally responsible." • Disciplined use of the Toyota Production System to improve processes through the elimination of waste. • Toyota has turned to nature to address problems: example – looked at schools of fish to try and understand how cars could prevent from running into one another.	• Tag line on all materials: "Team Medicine." • Have used the Toyota Production System, called the Virginia Mason production System as a management system for over 5 years. • They focus on meeting the same measures year after year. • They ensure that the right people are in leadership positions in order to make change happen. • They focus on saying, "we will do…." instead of "we can't."

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Jönköping, Sweden County Council	Japan Superflow: multiple manufacturing plants and museums.	Virginia Mason Medical Center, Seattle Washington
Leaders	• Leaders are expected to have a system's view of the organization and an understanding of each department's relationship with one another in caring for the patient. • Leaders meet 1x / month. • Leadership is responsible for production. • It's all about relationships and building a team.	• Leaders respond to problems by going to the environment where the work is done, seeing the problem for themselves, and working with the operator to solve the problem. • Leaders can influence the culture by going out and working with the workers; seeing the problems, and getting their hands dirty.	• Leaders are all Lean certified. • Leaders sign compacts that clearly articulate the expectation of Leaders at Virginia Mason • Leaders need to understand how they personally fit into the vision and then create the environment to motivate others to the vision; to change the culture.
Planning	• They have a consistent vision and plans to achieve that vision • Everyone is responsible to own the system and plan activities to improve the system. • Financial goals are #1. Spending happens when money is available. • Variation is studied. Improvement ideas are selected based on variation or gaps and plans are made to address these gaps. • Decisions are made based on the good of the whole. • They stressed that the future is now. • Tools are used in the planning process, i.e. EQ-SD. • There is a focus to take care of what worries them now. • There is a finite number of dollars for technology.	• Multi year plans were present at Yamatke, Toyota, Yamaha motor, and Yamaha Piano Factories using the Hoshin Planning Method. • Everyone is involved in planning in some fashion using a "catch ball" process, or asking for everyone's feedback on proposed plans, reworking the plan, and returning again to get feedback from all employees.	• They have 5 year plan with multi-year goals and targets. • Lead time reduction and safety are two key focal points to drive efficiency, cost reduction, and quality.
Daily Management		• All manufacturing plants had visual management including production control boards, Kanban, and a moving line.	• Work is visible on boards in the team area. • Leaders focus on process management.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Jönköping, Sweden County Council	Japan Superflow: multiple manufacturing plants and museums.	Virginia Mason Medical Center, Seattle Washington
Flow	• Teams complete a 5P exercise to understand the purpose, patients, people, process, and patterns in their work area. • They use the best possible flow to get the patient through the organization to the most qualified for the need. (extensive use of non-physicians)	• In order to improve, a leader must observe the work in a systematic way. What is the people flow? What is the process or material flow? What is the equipment flow? • Focus is on teamwork and the flow of work going down a line. • Work cells are very organized with established workflow, supplies at arms length from workers, clear worker expectations, and supportive leadership.	• Heavy use of lean principles to study and improve flow. • Created work cells with the focus on one cycle of work. • They simulate processes before they are implemented in a patient setting. • They use the concept of "on stage and off stage" to divide staff, supplies, and equipment from patient flow. • There is evidence of the Toyota Production System in their processes. • They have implemented improvements that bring products and services to the patient and the care teams. • They focus on the right person doing the right work (ex. Housekeeping making occupied beds.)
Safety	• Safety has been included in their improvement work since the 1990's. • All safety concerns are documented into a system called Synergy. • Work areas are calm and free of clutter.	• Safety, or safe work practices has been built into the buildings and work lines. This is evidenced by work/walk lines, placement of equipment, special equipment designed to prevent injury, and morning and midday worker stretching.	• They have a stop the line process called the Patient Safety Alert System. Anyone can report a safety concerns and no documented concern is considered a false alarm. Leadership responds to all concerns. • Handoffs are made in front of the patient with the sending and receiving staff present.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Jönköping, Sweden County Council	Japan Superflow: multiple manufacturing plants and museums.	Virginia Mason Medical Center, Seattle Washington
Quality	• Quality is considered a strategy. • The PDSA cycle is taught as the improvement methodology to use. • They have named a fictitious patient (Ester) and created a story of her interactions with the clinic and hospital to bring reality to a situation needing improvement and study the process. • They focus on the patient's true needs based on the patient's values. • They acknowledge that they can always do better. • It's about teamwork, a patient focus, and doing today's work today. • Dashboard and outcomes measures are visible for all teams.	• There is a stop the line process all along the manufacturing line. Any employee can stop the line indicating that there is a problem. • They have built in mistake proofing evident at each part of the manufacturing line. • They focus on elimination of defects in order to improve. • Checklists are visible on the line for employees to reference so that all tasks and personal inspections are done prior to handoff.	• They have a quality equation that includes the concepts of appropriateness, outcomes, service, and waste. • Outcomes are clearly identified. • They involve the patient in defining quality and working towards improvement.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Jönköping, Sweden County Council	Japan Superflow: multiple manufacturing plants and museums.	Virginia Mason Medical Center, Seattle Washington
Change Management	• Developed Qulturum as training and change facilitator. • Teams need to start improvement from "where they are at." They allow flexibility in implementing the change at the site. • They tell stories of success to drive/pull additional change at sites. • There are high performance expectations of managers regarding change. • A change is tested for 7 months and others are invited to view the change in action. Once proven, then the change is presented and others can make the change. • They reinforce that to change they must stay with the management and continue to support them. • To change, action must take place so new thinking occurs.	• They are not afraid of failing. You learn from your mistakes. • Small, incremental improvements are planned so that change is not overwhelming. • There is an expectation of continuous improvement and all employees need to be involved in continually improving their work.	• They reported that perseverance, even in the face of resistance has helped them with the massive amount of change that they are implementing. • They started out with standard and repetitive work for improvements. This approach helped care teams move from reactive to proactive care.
Communication	• They take time to meet face to face, via informal or formal, pre-arranged meetings. • There is a constancy of message: Continual reinforcement that everyone wants to be on a winning team and there is a continued need to improve. Everyone must have a full understanding of how process and measures support the work place. • Managers are expected to provide clear explanation of mission, vision, goals, and other information.	• Daily huddles on the lines were observed. • Leaders who presented their story stated that continually learn about their organization and business processes by telling the story. • A constancy of purpose was reinforced at all of the tours.	• They tell their story through the use of publications, pamphlets, department information boards, etc.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Jönköping, Sweden County Council	Japan Superflow: multiple manufacturing plants and museums.	Virginia Mason Medical Center, Seattle Washington
Training	• Focus is directed at on-the-job training.	• They reinforce the need to develop people. At the Toyota Kamigo plant, the speaker talked about 3 aspects of HR development: on the job training, collective education, and self development. • Yamatake- new employees receive 6 months of training. The first module of training is on quality. • Once an employee goes through training, he/she becomes the trainer the next time. • At Aisin, temporary workers receiving training and then work on the line. To be an employee, they are invited to take a test. If they pass, then they are hired as permanent employee.	• ALL employees receive Lean training. • The customer is at the top of their pyramid depicting their strategic plan. • New leaders work in the Kaizen Promotion office for the first 3 months of their employment to learn the Virginia Manson Production System in action.
Employee Engagement and Morale	• Teaming and relationship building is priority. Equity and value of all team members is verbally acknowledged. • Teams know their goals and plans to improve. • There were neat and clean working and break environments. • Learning is a priority. • A local idea generation and public recognition program is fully developed.	• Respect for all was talked about at each place we visited. Not only for the respect of the person, but also for the impact that each employee can have through their ability to think. • There is an active employee idea program at all plants. Employees are required to put in 2 ideas / month. • Employees clearly understand what is expected of them. Standard work documents are at their work sites.	• Everyday Lean idea program- this program is a vehicle for all staff to document their ideas for improvement, gain approval from their manager, and work the idea to completion. Once completed, the employee is rewarded for improving their work.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Boeing Manufacturing Plants (Renton and Everett)	Boeing Leadership Center "Leadership…Charting the course to build a competitive advantage" presentation	NUMMI
History/Background on journey to becoming a worldwide leader	• Clear focus, understanding and use of Toyota Production System (TPS) with the customer as the focus of their success. • They reported persistence and consistency in their approach to moving the company to a new level. • They spent the time to educate the organization on the TPS and Lean methodology- first to the leaders and then employees. • They adapted their business to their principles, not their principles to their business. • The creation of a moving line to build an airplane allowed them to dramatically decrease the Lead Time for an airplane.	• They want their leaders to be considered valuable outside of Boeing. • They focus on training that can be applied to on-the-job successes • They use the center as a way to bring people together from all parts of the world, integrate them into operations, and build a consistent culture and values.	• Mission: "Through teamwork, safely build the highest quality vehicles at the lowest possible cost to benefit its customers, team members, community, and shareholders." (NUMMI booklet) • Core values are five cornerstones: teamwork, equity, involvement, mutual trust and respect, and safety (NUMMI booklet.) • NUMMI is the Joint venture between General Motors and Toyota and is built around the Toyota Production System (TPS). • They opened the plant with the understanding that salaries would match other union wages but allow for more flexibility and commitment to using and implementing the TPS.
Leaders	• Leaders are responsible to make everyone's job successful. • Leaders should focus on problem resolution. • Job rotation is part of leadership development and to really understand the business. • Leadership can't be delegated.	• There is a dedication to training leaders and leaders being responsible to train other leaders. • Leaders learn by telling stories and being vulnerable. This is achieved by providing an open culture for dialog and candid discussions.	• The focus in on people; the customer and the employees. • Leaders are obligated to provide employees the opportunity to do a good job. • Leaders are rotated throughout the plant to better understand the business and develop the management team.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Boeing Manufacturing Plants (Renton and Everett)	Boeing Leadership Center	NUMMI
Planning	• They seek customer input to their plans. • Lead time and quality drive planning and metrics. • They have multi year plans.	• Leadership is considered a competitive strategy and they use this in their plans.	• Planning is multi year.
Daily Management	• A large production management board was visible in the plant. • They seek to harmonize quality, quantity, and timing in managing the activities of the day.	• TV screens listed all classes, times, and attendees.	• Production boards present at all lines.
Flow	• Kaizen (incremental change) is the basis for improvement in flow. • They have both a moving line and stages for the creation of airplanes.		• Kaizen is the basis for improvement in flow. • There was a moving line throughout the plant.
Safety	• Inspection was built into processes. All employees were able to stop the line as needed. • Lots of signs, posters, and reminders about worker safety. • Their process improvement methodology includes building in safety into the process.		• There was a stop the line process in place and all employees were expected to activate it to prevent any possible safety issues.
Quality	• Quality circles were formed to reduce defects. • There was careful selection of measures that ensures the right behavior. • Quality is considered full customer satisfaction. • They practice solutions to problems in a simulated setting before implementation.		• Focus is on the customer. • Quality circles address large problems. • All employees were responsible for improving their work environment to improve quality. Signs seen at the NUMMI plant said, "Quality- confirm with your eyes" and "Remember, Quality is within our control!"

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Boeing Manufacturing Plants (Renton and Everett)	Boeing Leadership Center	NUMMI
Change Management	• In order to understand what really is going and what needs to change, you must go to the environment and observe. • They realize that some people are not wired to understand Lean principles and they don't spend time on them. • Great ideas come from employees on how to improve their work. • The use of language is important.	• Leaders are able to change the culture though relationships and the ability to have open, honest, discussions.	• Bottom up changes were driven by employees.
Communication	• Lots of face to face communication; even on off shifts.	• Consistent message about leadership was disseminated. Leaders must drive the attributes of the organization.	• Learning was through story telling. • Team huddles were held at the beginning of the shift. • Informal luncheons and other sessions were held between the union representatives and management to address issues before they become full grievances.
Training	• Lots of opportunity for on-line education. • Leaders go to Boeing Leadership Center.	• Leadership training is done via a defined development plan and feedback. • There is planned development and deliberate succession planning.	• Employees go through full training that includes a work hardening program and simulated manufacturing line.

Appendix 1: Key Learning from Travel:
All information was gathered from site tours, presentations, and company materials.

	Boeing Manufacturing Plants (Renton and Everett)	Boeing Leadership Center	NUMMI
Employee Engagement/Morale	• Relationships are of utmost importance. • Employees need to see themselves in the vision of the company. • Trust- you must have it in order to be successful.	• It's about relationships; leaders need to develop their teams by getting employees involved in the work that they do. • The Boeing Leadership Center focuses on the entire leader; body, mind, and spirit to become a better leader.	• Relationships are of utmost importance. Mutual respect and trust is the basis of the teams. • Equality of all employees is stressed (there is no executive dining room or parking spaces.) • Everyone is involved in making NUMMI a better place to work. • Employees routinely told how they are performing. • Full benefits for employees and other perks including discounts on cars. • There have been no layoffs. • There is a commitment to remaining competitive in the auto industry. • They focus on family and community.

Appendix 2: Brainstorming and Sorting List

Affinity Diagram
World-Class Patient Centered Teams are characterized by....

Header Item	Category Description
1.00	An obsession for safety of the patient and the team
1.01	Acute focus on safety of patient and staff
1.02	Mistake proofing potential defects
1.03	Work environments that are clean and uncluttered
1.04	Safety is built into their processes
1.05	There is a "stop the line" process that can be invoked by anyone.
2.00	Doing what is right for the patient
2.01	Patient is the number 1 customer
2.02	Caring for others
2.03	Anticipating patient needs
2.04	Putting the need of the patient first
2.05	Providing for the patient's comfort
2.06	Patient knows the team
2.07	Patient dignity
2.08	To provide education to patients that suits their needs
2.09	Ability to direct patient to other expertise by name
2.10	Putting the patient as an active team member
2.11	Understanding and value patient goals
2.12	Patient involvement
2.13	Patient engagement
2.14	Support to patient decision-making (provide information)
2.15	Educating the patient (making it happen)
2.16	Effective handoff to other shifts
2.17	Focus is on the patient and his/her requirements (values, needs)
3.00	Playing well with others
3.01	Identifies the names and roles of support staff
3.02	Intentional connection to teams on other shifts
3.03	Ability to follow the patient even after he leaves the team
3.04	Intentional connection with teams indirectly involved with the patient
3.05	Teams play well with other teams
3.06	Appropriate sense of urgency between teams
3.07	Understanding that the team contributes to the larger system

Affinity Diagram
World-Class Patient Centered Teams are characterized by....

Header Item	Category Description
4.00	A deep understanding of cost and value
4.01	Good stewardship (finance, human resources)
4.02	Understanding economic performance
4.03	Timely access to finances
4.04	Provide estimate of cost, time off, alternatives
4.05	Understand cost to patient
4.06	Understand the cost and value of the services we provide
5.00	Cultivated team excellence
5.01	Passionate commitment to the team
5.02	Trust each other
5.03	Defined team mates
5.04	High demand to get on that team
5.05	Pride in the team and the organization
5.06	Team holds each other accountable
5.07	Pitch in when necessary
5.08	Team members care about and help each other
5.09	Low turnover
5.10	Spontaneous recognition and encouragement of team members
5.11	Ability to do a self audit/self assessment
5.12	Ability to communicate with precision
5.13	Having a shared vision
5.14	Receptivity to change
5.15	Healthy, balanced individuals
5.16	Make time to be together with the team
5.17	High morale
5.18	Investing in relationship with others on the team
5.19	Disciplining your own team members
5.20	Positive attitude
5.21	Enjoying being on the team
5.22	Choose their own team members well
5.23	Defining the right training method for the team to learn
5.24	Making time available for training
5.25	Understanding what training they need

Affinity Diagram
World-Class Patient Centered Teams are characterized by....

Header Item	Category Description
5.26	Career development by team members
5.27	Identify and offer career laddering opportunities
5.28	Helping develop other teams
5.29	Understanding team progression ladder
5.30	Helping each other understand their jobs
5.31	Understanding each others role
5.32	Does team know its limits?
5.33	Understanding their scope (their Value Stream)
5.34	Understanding that they are not the only team supporting the patient
5.35	Maximizing the use of each team member's skills
5.36	Pride is displayed in the work that they do
5.37	An attitude that they can always do better.
5.38	The drive to reduce defects in their care processes.
5.39	Quality checks are built into each process step
5.40	Not afraid to fail
5.41	Learning can be done through story telling
5.42	Team members are trained through the use of simulation away from the patient area
5.43	Teaming and relationship building is a priority. Trust must be established on the team.
5.44	Equity, respect, and value of all team members is visible in daily work.
5.45	Learning is a priority.
5.46	Employees see themselves in the vision.
5.47	Employees know how to improve their work and make suggestions on a routine basis.
5.48	Extensive training programs for all team members.
6.00	By the way they plan and set goals
6.01	Defined objectives
6.02	Aligned with corporate goals and objectives
6.03	Committed to common goals
6.04	Short and long term planning
6.05	Proactive, competitive analysis
6.06	Proactive assessment of technology
6.07	Proactive assessment of new services
6.08	Consistent vision and plans
6.09	Multi year planning and goals
6.10	Team involvement in planning

Affinity Diagram

World-Class Patient Centered Teams are characterized by....

Header Item	Category Description
7.00	Effective use of tools and systems
7.01	Good prompts and reminders
7.02	Developing own internal systems to support patient within standard work confines
7.03	Providing feedback to improve external systems to support the patients
8.00	The use of data to improve outcomes
8.01	Track and manage outcomes
8.02	Good knowledge of local measures
8.03	Agreed upon measures
8.04	Defining quality from the patient's perspective
8.05	Use of results to improve performance
8.06	Accelerated rate of improvement
8.07	Constant learning
8.08	Simple and actionable measures
8.09	Data is openly displayed in the work area
9.00	A demonstrated competence in the use of Lean principles
9.01	Following standard work
9.02	Developing standard work
9.03	Proactively improve standard work
9.04	Once piece flow
9.05	Appropriate cross training of staff
9.06	Documentation of processes and methods
9.07	Understand lead time and cycle time
9.08	Proficient in the use of Kaizen tools
9.09	Organized work environment, evidenced that 5S was done.
9.10	Large number of successfully implemented "KEEP" ideas
9.11	Establishing Kanban with suppliers
9.12	Practice autonomous maintenance
9.13	Use of problem solving tools/creative problem solving
9.14	The use and dedication to the Toyota Production System as a management system
9.15	Flow is maximized to move patients through the department
9.16	Lean principles are used to study and improve flow
9.17	U-shaped cells and the establishment of 1 cycle of work
9.18	Changes are driven by employee ideas
9.19	Name a patient in the creation of the Value Stream Map so that the flow is understood from a patient's point of view.

Affinity Diagram
World-Class Patient Centered Teams are characterized by....

Header Item	Category Description
10.00	Effective Local Leadership
10.01	Good leadership
10.02	Leadership practiced by many
10.03	Open, fearless communication
10.04	Reasonable degrees of autonomy
10.05	Leaders feel they have the power to change the work environment
10.06	Creative problem solving
10.07	Promotion from within
10.08	Establishes positive local conditions
10.09	Leaders function as production managers
10.10	They go to the environment to figure out what is wrong, and work with employees to solve the problem.
10.11	Systems view- understand how their team functions within the whole
10.12	Establish good relationship with staff and establish a team
10.13	Establish a defined development plan for their staff
10.14	Place the right people in the right positions
10.15	Assign the right person/role to the right work
10.16	Leaders respond to possible defects and feel responsible to mistake proof processes.
10.17	Leaders understand and observe flow
10.18	Face to face communication
10.19	Consistent messages and reinforcement of messages in all communication
10.20	Employees know what is expected of them.
11.00	Meaningful relationship with patients
11.01	Really knowing each of their patients
11.02	Patients feel known by their team
11.03	Connecting with/creating a patient support team
11.04	Ability to configure expertise to meet patient
11.05	Right level of care for the right person at the right time
11.06	Practice active listening
11.07	Know who their patients are (demographics)
11.08	Communicating with patients via patient's preferred method
11.09	Standard way of presenting information to patients
11.10	Helping set patient expectations
11.11	High patient activation measures
11.12	Matching patient needs and personality with a team
11.13	Understand patient's needs after they leave

Affinity Diagram

World-Class Patient Centered Teams are characterized by....

Header Item	Category Description
12.00	Providing emphasis on planned care
12.01	Great majority of care is planned care
12.02	Community resources to connect to
13.00	The disciplined practice of visual daily management
13.01	Capacity to meet patient needs
13.02	Flexible capacity to meet the need
13.03	Having the time to do their tasks (breathing room)
13.04	Care when and where they (the patient) need it
13.05	The need for a daily manager
13.06	Work is current
13.07	Anticipating the needs for today, tomorrow
13.08	Practicing daily management
13.09	Team functions in a calm, orderly fashion
13.10	Work is visible in the team areas
13.11	Actions are taken based on the progress made during the day
13.12	Daily team huddles
14.00	The availability and ready access for patients
15.00	Highly satisfied patients
15.01	Satisfied patients
15.02	Real time patient feedback
15.03	Real time service recovery
15.04	Attention to aesthetics and beauty
15.05	Quality is full patient satisfaction.

Appendix 3: Team Developmental Modules with Associated Key Curriculum Elements

Team Developmental Module	**Key Curriculum Elements**
Forming and Building a Team Intended Audience: All Team Members	**Creating a Team Identity-** Create a formal team roster Take and post a team picture Complete the 5P exercise to understand their purpose, the people on the team (and the role that they play), the patients who they see, the processes that they do repeatedly and rely on, and the patterns in their business (Nelson et al, 2007) **Building a team** – Complete the Park Nicollet *Creating a Caring Experience* modules based on the Lencioni pyramid (Lencioni, 2002) **Building an organized work environment-** Complete a 5S in the work environment as a team Create and/or understand andons, or the signals that will be used to indicate the status of work processes and the patient status within the process flow
Developing Local Leadership for the Patient Centered Team Intended Audience: The Team Leader(s)	**Understand the expectations of Local Leadership at Park Nicollet:** Builder and maintainer of people relationship based on safety, trust, openness, and inclusion; Owner of management system: Park Nicollet System of care; Communicator; Instigator of change; Learner **Understand, learn, and develop Leadership skills including:** Relationship building, understanding the Park Nicollet System of Care as a management system, Daily management, Process Management, Effective Communication (consistent and repeated messages), Meeting management, Change Management, Project Management, the Power of Reflection, and Self

	Development. **Practice leadership skills in a simulated environment including how to effectively articulate expectations with your team.** **Receive support and feedback during leadership skill development** Assigning mentors to leaders
Planning for Team Success Intended Audience: Team Leader(s)	**Understanding the strategic planning process at Park Nicollet for the Local Leader** **How to develop team goals and plans** Understanding the team's current state Identifying the desired future state Establishing goals as a team Creating a plan to meet the established goals **How to effectively collect, display, and respond to data as a team.** Data collection options Run charts vs. control charts Understanding variation **Creating an effective meeting infrastructure for your team** How to scheduling meetings How to create a meeting agenda How to conduct an effective meeting **Creating a culture of team empowerment** Empowerment: what it is and how to cultivate it in your team The power of decentralized decision making
Establishing and Perfecting Core Processes and Standards of Excellence Intended Audience: All Team Members	**The Moonshine Room- understanding the concept and location of the room** Process to reserve the room What can be accomplished using

	the room **Understanding and documenting core business process workflow and role responsibilities** How to document a value stream map or process flow including handoffs to other teams Standard Work/Work Standards- what these documents are and how to create them for your team **Practicing core business processes in a non-clinical setting with a focus on key handoffs**
Delivering Care When and Where it is Needed Intended Audience: All Team Members	**Visual Daily Management-** What it is (including the board, process, and roles) and how it benefits teams The purpose of huddles Using VDM to manage daily work and making real time adjustments Using VDM to track progress towards goals **Stop the line process-** What it is Why it is needed When to invoke the process Role's and responsibilities in stopping the line to maintain quality and safety
Team Reflection, Learning, and Continuous Improvement Intended Audience: All Team Members	**The power of reflection** What is reflection The purpose and goals of team reflection The types, principles, and timing of reflection The role of the leader in team reflection **Storytelling** what it is and how it helps teams to document processes, reflect, learn, and celebrate

	Continuous Improvement methodologies Lean principles PDCA methodology Understanding process variation Using fictitious patients to document and improve patient flow **Responding to data- on a daily, weekly, and monthly basis** How to take goals and break them down into actionable elements