Issues in the Creation of Specialized Medical and Surgical Units

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As the only provider of tertiary pediatric care in the intermountain west (Utah, Idaho, Montana, Nevada, and Wyoming), Primary Children's Medical Center (PCMC) has incrementally increased inpatient capacity. Due to steady population increases and changes in types of populations served, planned expansion of inpatient capacity has also allowed for unit specialization (U.S. Census Bureau, 2002; Wetrogan, 1988).

In response to increasing inpatient demands, PCMC added 24 beds to the Children's Medical-Surgical (CMS) unit in January of 2004. Until that time, the CMS unit consisted of 44 beds for medical and surgical patients over three years of age. With the addition of the 24 beds, the CMS unit was divided into two units, a 40 bed medical unit, and a 28 bed surgical unit. This addition presented unique challenges in leadership restructuring. Managing the change also required the resolution of major staffing and patient placement issues. In spite of the challenges, there was also an opportunity to improve the quality of patient care for both medical and surgical pediatric patients.

PCMC's Administrative Council (AC) (consisting of the CEO, COO, Chief Nursing Officer, and other key directors) was charged with deciding whether to expand the CMS unit or make two separate units. The decision to make two separate units was based on the desire to realize the advantages of increased specialization and to limit staff size to that which one leadership team could successfully manage. The benefits of two specialized units include consolidated geography for patient placement (a significant physician satisfier), specialization of nursing skills, and appropriate staff size for a leadership team to manage and develop. A further benefit included enhanced physician-nurse relationships and communication due to decreased staff size and close interaction with specialists.

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Throughout the decision making process, communication was ongoing and frequent. The CNO, the AC key decision maker for this process, communicated frequently with the CMS director who in turn provided the available information to her staff. As the staff provided feedback, the CMS director sent it to the CNO who in turn presented it to the AC. This process gave the staff representation, an opportunity to provide feedback, and time to adjust to the upcoming changes. This process facilitated the "unfreezing" stage of the change process. Staff members were able to understand the driving forces for the change, and, in return, the director and AC were able to determine ways to manage the restraining forces that would resist the change (Cummings, 1999; Lewin, 1951). Communication, itself is a key strategy utilized to reduce resistance to change (Kotter & Schlesinger, 1979).

Time Frame

To assist in the following discussion, the timeline of expansion activities is as follows:

- Announcement of expansion: First quarter 2002
- Patient placement determination: Third quarter 2003
- Determined need for two leadership teams: June 2003
- Director position posted: July 2003
- Additional leadership team positions posted: September 2003
- Two leadership teams in place and functioning: October 2003
- Recruitment to staff new beds: October 2003
- Staff decision for unit of choice and/or shared position: October 2003
- New beds in operation: January 2004

Leadership

The current CMS leadership consisted of a Director (1 FTE), two managers (each of whom work half time in the manager role and the other half as a staff nurse for a total of 1 manager FTE), a clinical educator (1 FTE), clinical nurse specialist (CNS) (1 FTE), and an office coordinator/ health unit coordinator (HUC) supervisor (.9 FTE). The director has overall accountability for the direction and budget of the unit. The managers are responsible for the day-to-day functioning of the unit including equipment, scheduling and staffing. The managers and director jointly manage specific employee issues. The clinical educator coordinates the orientation of new staff, mandatory and other unit education and staff development. The CNS is responsible for clinical consultation, patient management

and also has a role in staff development. The office coordinator/HUC supervisor manages the HUCs and the clerical functions of the unit.

As it was determined that the size of the two units was too large to be managed by the current CMS team, the CNO worked collaboratively with the CMS team in the development of two separate teams. The current CMS leadership teams were allowed to choose which unit they would like to be assigned to. The CMS director chose to lead the surgical unit and the medical unit director position was posted in July of 2003. The candidate chosen for this position was a nurse manager from the existing team. Once the director positions were determined, the remaining members of the existing team chose their desired unit. Positions were posted for the remaining vacancies on each leadership team. The medical and surgical unit teams were hired and began work in October 2003. This lead-time was essential in allowing time to plan and coordinate a smooth transition.

Patient Placement

PCMC analyzed past and projected admissions to determine the expected average census of each unit following the expansion. They utilized data from 2001 and 2002, the timeframe following the most recent prior expansion. Based on this analysis, the new surgical unit would run at an average of 52% capacity, the medical unit at 60%, and the other inpatient areas at 85-90%. To provide for more equitable ongoing census in each unit, patient placement guidelines were altered in collaboration with all inpatient departments. This process was managed collaboratively with the CNO, non-ICU inpatient directors, and the PCMC strategic manager. By agreeing upfront that their outcome would result in an equitable average daily census between the inpatient units, they were able to over come individual director concerns and reach a consensus.

The age guideline for medical and surgical unit admissions was decreased from greater than thirty-six months to greater than twelve months (decreasing the census on the infant unit). Non-trauma orthopedic surgery patients were admitted to the surgical unit (decreasing the census on the neuro-trauma unit). It was also determined that patients requiring telemetry monitoring, regardless of age or diagnosis, would be placed on the surgical unit. With these adjustments, the projected census for each inpatient unit was approximately 70%.

Staffing

Distribution of current staff

With the opening of 24 new beds, the obvious initial concern was hiring adequate staff to meet patient care needs. However, before hiring needs could be assessed, the existing staff needed to be distributed between the two units. Staff participation in determining how to manage this was key to its success and consistent with Lewin's change theory (Damsell, 1998; Dyck & Halpern, 1999; Evans, Hamilton, Surtees, & Tuck, 2000). Once this occurred, each unit could determine its additional hiring needs. Each step presented unique challenges and issues.

Existing CMS staff members were allowed to choose either the medical or surgical unit with the additional option of working part-time in the other. Staff members were also allowed to change their home unit one time without a loss of unit seniority and/or set schedule. The specific rules as to how this would be administrated was determined and agreed upon by the staff. They determined such things as how to maintain set schedules, how to honor seniority, and how to coordinate staffing with shared staff for holidays and vacations.

This proved to be a beneficial strategy for the staff and the leadership team. Staff had many emotions about the division of the unit. Some had been frustrated with maintaining the multitude of skills required for the diverse CMS population and were excited for the opportunity to specialize. Others felt a loss for the patients they would not see and the skills they would lose. Many weren't sure which population they preferred. They also had attachments to their colleagues they may no longer be working with. Those that chose the shared option had the opportunity to maintain their diverse skills, interact with the patients they enjoyed, and maintain relationships with staff in both units. It alleviated much of the anxiety regarding the change. This observation is consistent with the literature which has repeatedly found that existing social networks form a crucial component to overall job satisfaction (Hirsch & David, 1983; Lawrence, Wearing, & Dodds, 1996; MacPhee, 2000; MacPhee & Scott, 2002).

Initially, 40% of the existing staff chose to be shared. As time has passed some staff have chosen not to be shared, or changed their home unit. As they have done so, it is with experiential knowledge of what each unit is like and their decisions are made with confidence. Currently, the medical and surgical units share about 30 staff (about 20% of each unit's staff). The 20% that has chosen to be shared has remained so over the course of the last six months. There are major challenges in scheduling and supporting the education and competency needs of the shared staff. However, the pay off in staff satisfaction and increased retention has made it worth the effort. Many of these shared staff members are among the most senior nurses with strong ties to both units. By sharing experienced staff, both units have been able to make use of the acquired clinical experience of senior members. By drawing on the

experienced nurses of both units, a larger effective pool of nurses available for precepting the large number of new nurses needed was available. Similar strategies have been used in other situations with success (Benson, Morahan, Sachdeva, & Richman, 2002; Jost, 2000; Ritter-Teitel, 2002).

Recruitment

Beginning in October of 2003, based on projected needs, new staff were hired for either the medical or surgical unit. Unfortunately, aggressive recruiting efforts were unsuccessful in hiring sufficient staff for the new beds. Ten traveler RNs were hired from January to April to meet staffing needs until sufficient permanent staff could be hired and trained. The traveler nurses worked on both the medical and surgical units as needed. In addition, one of the largest seasons of flu and RSV peaked within days of the opening of the new beds. As the surgical unit was better staffed at this time, the leadership teams of the units decided to keep the nursing staff combined until May and distribute staff between the two units based on individual needs. This maintained a collaborative relationship between the two units and assisted in meeting staffing needs while additional staff were hired and trained.

Communication

As time has passed, the units have become more separate and focused on their individual needs. As a result, ongoing open communication between the two units' leadership teams has been essential to resolving issues. For example:

- Each unit must communicate information about staff issues (e.g. leave of absence, status changes, disciplinary action) for those staff that are shared.
- Unit governing committees were combined for a year at which point it was determined via staff feedback that each unit would be better served by its own committee focused on its unit's specific needs.
- Deadlines for staff to make schedule requests and sign up for holidays and vacations must be coordinated.

The two units are geographically adjacent and the leadership teams have easy access to each other. Although not perfect, because it is a priority, the collaborative relationships and communication between the two units is generally effective.

Capitalizing on Improvement Opportunities

With the creation of two units, the narrower focused patient population served by each unit provided opportunities to improve patient care. These efforts focused on improving physician and nurse communication and care management of common diagnoses. An example of improvement areas on the surgical unit include improved communication with surgeons (this has been greatly facilitated by the hiring of a general surgeon as a medical director) and has resulted in the implementation of care process models and standardized order sets for common surgical diagnoses (e.g. pectus excavatum repair, perforated and non-perforated appendectomies). The surgical unit has also focused on post-op pain management. As a result of these efforts, customer satisfaction ratings for "How well was your child's pain controlled" improved from 39.3% to 50.8% of families providing a rating of "excellent." In addition, the numbers of families reporting a "fair," or "poor" rating have decreased from 6.5% to 5.1%.

The medical unit already had a great program for diabetes education for newly diagnosed patients, but it has taken the opportunity to also improve education and management for patients with Type II and Cystic Fibrosis-related Diabetes. They have also focused on the care and management of the Cystic Fibrosis patients that comprise a large part of their chronic patient population. A quality project has developed patient teaching guides, behavior plans and trained a designated group of nurses to care for Cystic Fibrosis patients. They have developed an RN support role to assist in the training and development of the staff in caring for renal and GI patients. When patient placement guidelines lowered the age of patients placed on the medical unit, they began to serve children with short gut syndrome at a younger age than they had previously and needed a program to transition these patients from the infant unit. They have also taken steps to improve relationships with the hospitalists that serve their medical patients.

Benefits of Collaboration

The units have functioned well in collaborating to enhance patient care and staff management. Examples of successful collaboration include:

- Coordination of mandatory education requirements and class dates to facilitate the needs of the shared staff.
- Consolidation of orientation class time. New nurses attend 6 hours in classes that address issues of both units and 3-4 hours in unit specific classes. This is a more efficient use of scarce teaching resources.

Summary

Summary of ideas that were helpful for managing expansion:

- Hire new leadership with sufficient lead-time to plan and manage transition.
- Adjust patient placement guidelines to allow for equity in average daily census amongst individual units.
- Provide an opportunity for staff to participate in tran-

sition strategies, particularly those involving staffing and unit designation.

- Find creative ways to schedule and coordinate staff based on individual staff preferences and unit needs. Sharing staff can be a successful option.
- Maintain identical policies for scheduling and staffing on both units that are implemented consistently and uniformly.
- Maintain frequent open communication between the two units.
- Capitalize on opportunities to improve patient care for a narrower patient population.
- Find opportunities to collaborate and maximize scarce education and leadership resources.

References

Benson, C. A., Morahan, P. S., Sachdeva, A. K., & Richman, R. C. (2002). Effective faculty preceptoring and mentoring during reorganization of an academic medical center. Med Teach, 24(5), 550-557.

Cummings, T. (1999). The Role and Limits of Change Leadership. In J. Conger, M. Spreitzer & E. Lawler (Eds.), The Leader's Change Handbook (pp. 301-320). San Francisco: Jossey-Bass.

Damsell, K. (1998). Celestica Escapes from Its Cage. National Post, Spetember 1, 1998, 9.

Dyck, R., & Halpern, N. (1999). Team Based Organizations Redesign at Celestica. Journal for Quality and Participation, 22(September-October 1999), 36-40.

Evans, M., Hamilton, L., Surtees, L., & Tuck, S. (2000). The Road to a Billion. Globe and Mail, January 6, 2000.

Hirsch, B. J., & David, T. G. (1983). Social networks and work/nonwork life: action-research with nurse managers. Am J Community Psychol, 11(5), 493-507.

Jost, S. G. (2000). An assessment and intervention strategy for managing staff needs during change. J Nurs Adm, 30 (1), 34-40.

Kotter, J., & Schlesinger, L. (1979). Choosing Strategies for Change. Harvard Business Review, March-April, 106-114.

Lawrence, J. A., Wearing, A. J., & Dodds, A. E. (1996). Nurses' representations of the positive and negative features of nursing. J Adv Nurs, 24(2), 375-384.

Lewin, K. (1951). Field Theory in Social Science. New York: Harper and Row.

MacPhee, M. (2000). Hospital networking. Comparing the work of nurses with flexible and traditional schedules. J Nurs Adm, 30(4), 190-198.

MacPhee, M., & Scott, J. (2002). The role of social support networks for rural hospital nurses: supporting and sustaining the rural nursing work force. J Nurs Adm, 32(5), 264-272.

Ritter-Teitel, J. (2002). Sail smoother with systems thinking. Nurs Manage, 33(11), 35-37.

U.S. Census Bureau. (2002). Population Projections Program: Series A Projections. Retrieved March 14, 2005, from http://www.census.gov/population/www/projections/stproj.html

Wetrogan, S. I. (1988). Projections of the population of states, by age, sex, and race: 1988 to 2010. Curr Popul Rep Popul Estim Proj, 1-124.