

Case Study

Summa Health System's Care Coordination Network

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“Summa’s experience with CCN suggests that improving transitional care coordination must go beyond creating a transfer form to encompass a broader process that builds communication, trust, and a unified vision among stakeholders.”

Summary: *Increasing demand for acute care beds led an Ohio health system to establish a network that aimed to improve transitional care between its hospitals and local post-acute care facilities.*

By Douglas McCarthy and Christina Beck

Issue

Ensuring patients transition smoothly from hospitals to post-acute care settings, such as skilled nursing facilities, depends upon effective staff communication and patient documentation. Fragmentation in the health care delivery system often leads to failures in transitional care, putting patients at risk for adverse outcomes that can lead to costly hospital readmissions. [1]

At Summa Health System in Akron, Ohio, a longstanding concern for improving care coordination was given renewed impetus by pressures to ensure more timely patient discharges to post-acute care. In particular, reimbursement policies were favoring shorter hospital stays, and hospital capacity constraints were causing patients to be diverted to other hospitals. These dynamics led Summa to partner with local, post-acute care providers to establish the Care Coordination Network (CCN).

Organization and Leadership

[Summa Health System](#) is an integrated delivery system that includes three not-for-profit teaching hospitals, four outpatient health centers, a for-profit health plan, and a physician-hospital organization, all in Summit County, Ohio. The system's hospitals have a total of 1,235 licensed beds, admit more than 38,000 inpatients, and serve 113,000 emergency visitors annually.

Judy Akins, R.N., M.S.N., formerly executive director of Senior Services at Summa, Kyle Allen, D.O., medical director of Senior and Post Acute Services and chief of the Division of Geriatric Medicine at Summa, and Carolyn Holder, M.S.N., A.P.R.N., B.C., geriatrics coordinator in Summa's Post Acute/Senior Services, led the task force that gave rise to the CCN.

The CCN is composed of representatives from Summa and participating post-acute care providers including 28 skilled nursing facilities, local EMS/ambulance services, and the local [Area Agency on Aging](#). The CCN is co-chaired by Allen and Scott Bower, director of operations for Bath Manor, a skilled nursing facility in Akron.

Objective

Summa sought to form a network of post-acute care providers to:

- improve access for Summa Health System patients to post-acute care beds;
- facilitate transfer of patients across the continuum of care;
- improve communication and coordination across the continuum of care;
- optimize the combined expertise and knowledge of participating providers to achieve desired clinical outcomes;
- leverage combined efforts to effectively manage health care resources; and
- improve patient outcomes.

Implementation Timeline

Summa initially contacted all area skilled nursing facilities in 2002 to gauge their interest in forming a care coordination network. Thirty-eight facilities attended an initial meeting, and 26 of them agreed to establish the CCN. A task force was created to delineate the network's mission, clinical guidelines, participation, and quality standards. All CCN members signed a memorandum of agreement accepting these principles. Its members, which met biweekly, chose to address the care coordination process in three phases:

- During the first and second quarter of 2002, they developed a standardized nursing facility referral process, including

guidelines for determining patients' post-acute care needs and a quick reference tool for discussing these decisions with patients.

- During the third and fourth quarter of 2002, task force members identified priority areas for improving care transitions and created a clinical and educational subcommittee to address these needs.
- During the final phase in 2003, they developed outcome measures to monitor member and network performance, and established best practice protocols to sustain and encourage quality improvement.

Process and Results of Change

Members identified many factors that impede smooth patient transitions, including the lag time to identify post-acute bed availability and gaps in the information received upon a patient's transfer. The CCN assessed various ways to tackle these problems. Communication between providers topped everyone's list; other potential solutions were to establish a common care plan, care summaries from sending institutions, and patient preference synopses.

Developing a dialogue with skilled nursing facilities and learning about their information needs enabled Summa to develop a single post-acute transfer form for CCN members. Summa's collaborative effort contributed to the development of a regional post-acute care transfer form under the direction of the 20-member Akron Regional Hospital Association. This form is now used to standardize information transferred between acute hospitals and skilled nursing facilities throughout the four-county northeastern Ohio region ([download](#) the form).

Summa also implemented electronic referrals using the [Extended Care Information](#)

Network (ECIN) software developed by a case management software and consulting company. This application enables member facilities to query each other about available beds, patient needs, and other transition issues, thereby improving the efficiency of the referral process. CCN members have the option of implementing the ECIN for Internet-based referrals or faxing the forms.

Other actions the system has taken to increase communication among network members include:

- educating hospital and nursing facility staff about the network and its efforts to improve the patient transition process;
- holding an annual educational fair to increase hospital discharge planners' and social workers' awareness of the nursing facilities available for referrals;
- creating a resource manual describing CCN nursing facilities for use by hospital discharge planning staff when discussing post-acute care placements with patients and families; and
- establishing a hotline for post-acute providers facing transfer problems.

Summa currently collects performance data on all patients transitioning to post-acute care facilities from Summa hospitals, including the following measures:

- average length of hospital stay for patients discharged to post-acute care (prior to initial discharge);
- case mix index;
- hospital 31-day readmission rates from post-acute care facilities; and
- mortality rates for patients that are readmitted from post-acute care.

The system shares blinded, facility-specific performance data with network members on a semi-annual basis to identify best practices, target improvement efforts, and recognize

outstanding performance (see [figure](#), last page). Comparative facility data also create peer pressure that encourages network members to improve their performance, thereby improving network performance overall.

Since the network's creation in 2003 through the end of 2006, Summa's 31-day readmission rate for post-acute patients dropped from 26 percent to 24 percent. Average length of stay for the 3,000 patients discharged to post-acute care annually decreased from more than 7.4 days to 7.1 days during this time. This reduction in average length of stay enables Summa's hospitals to admit an additional 130 patients annually without additional staff or resources. Together with other interventions for improving patient flow, the CCN has helped Summa reduce the percentage of time that patients are diverted to other facilities because of hospital bed capacity constraints.

Creation of the CCN also has led to a reduction in broken appointments for same-day surgery and outpatient testing among post-acute care patients. Previously, many of these patients would arrive from nursing facilities with incomplete paperwork, and they would have to return to the facility. To address this issue, CCN members met with same-day surgery and outpatient procedures staff to develop a simple solution: the local ambulance service responsible for transporting these patients started double-checking patient paperwork to ensure it was complete before initiating a transfer.

Lessons Learned

Building mutual trust among CCN members was crucial to its organization and accomplishments, according to Allen. At the initial network planning meeting, he told attendees, "Leave your competition at the door; this is about improving quality." Other

keys to the network's success were strong leadership, persistence of vision, willingness to challenge the status quo, sensitivity to member-specific concerns, step-wise implementation, and feedback evaluations.

The network's experience suggests that a universal transfer form facilitates better care coordination by improving communication among providers involved in transitioning patients across settings of care. But, says Allen, "There's nothing magical about the form . . . It's about building relationships."

Keeping members engaged has been a challenge for the CCN, especially given the frequent turnover in nursing facility administrators. Since its inception, CCN has met this challenge through special events and subcommittees focused on continuous quality improvement, and by providing ongoing education on the network's vision, guidelines, and performance goals.

Allen, Akins, and Holder—all clinicians and administrators familiar with both acute and long-term care—helped to build bridges between network members. Summa steered clear of imposing a hospital-centric approach on post-acute care providers. Instead, the network built relationships through mutual learning and "sharing knowledge for collaboration," Allen says.

Participation in the CCN increases post-acute care facilities' visibility with hospital caseworkers, thus giving them a competitive edge for receiving post-acute care referrals, according to Bower. Complete patient information also enables facilities to classify patients in appropriate Resource Utilization Group payment categories, enabling them to maximize their reimbursements.

CCN improves the care experience for patients by enabling nursing facilities to be better prepared when patients arrive from

the hospital, Bower says. Reducing hospital readmissions also benefits patients by avoiding unnecessary transfers and the potential adverse events that can accompany them. Shifting patient bed days from the hospital to the nursing home keeps nursing facility beds full while reducing hospital overcrowding.

Next Steps

Members of the Akron Regional Hospital Association are working with post-acute care providers to promote a patient-focused approach to transitional care throughout the four-county region, says Marianne Lorini, the association's president and CEO. Area hospitals and skilled nursing facilities, including CCN participants, are currently pilot testing a new "Resident to Hospital Transfer Form" and the use of a resident identification arm bracelet to improve communication when residents are transferred from skilled nursing facilities to hospital emergency departments.

Summa has recommended that the hospital association create an ongoing forum for hospitals and post-acute care providers to discuss transitional care issues more broadly. While each hospital must take the initiative to improve relations with its local post-acute care providers, says Allen, these efforts could be enhanced and expanded through regional collaboration. "Standardization and consistency from institution to institution enhances patient safety," says Lorini.

Ohio's Medicare quality improvement organization, [KePRO](#), has investigated extending the network model and transfer form statewide. Groups with a similar interest in building community-wide collaboration between nursing homes and hospitals have convened in the Youngstown, Cleveland, Cincinnati, and Toledo areas,

according to Rita Bowling, director of Acute Care Services for KePRO.

Implications

Care coordination is a cross-cutting issue that affects multiple domains of quality, including patient safety, health system efficiency, and patient experience. Summa's experience with CCN suggests that improving transitional care coordination must go beyond creating a transfer form to encompass a broader process

that builds communication, trust, and a unified vision among stakeholders.

CCN shows that an intervention to improve transitional care coordination is feasible for those with the will to create change. Including [transitional care quality measures](#) in publicly reported hospital quality data might provide an additional incentive for hospitals to engage in a dialogue with local post-acute care providers about improving care coordination practices. [2]

For Further Information

Visit the Summa Health System [Web site](#) or contact Kyle Allen at allenk@summa-health.org.

References

- [1] E. A. Coleman (2003) [Falling Through the Cracks: Challenges and Opportunities for Improving Transitional Care for Persons with Continuous Complex Needs](#), *Journal of the American Geriatric Society* 51, 549–555; E. A. Coleman et al. (2003) [Falling Through the Cracks: Practical Strategies for Reducing Adverse Events Among Older Patients Transferring Between Sites of Care](#), *Annals of Long-Term Care* 11, 33–36; A. J. Forster et al. (2003) [The Incidence and Severity of Adverse Events Affecting Patients after Discharge from the Hospital](#), *Annals of Internal Medicine* 138, 161–167.
- [2] E. A. Coleman et al. (2005) [Assessing the Quality of Preparation for Posthospital Care from the Patient's Perspective: The Care Transitions Measure](#), *Medical Care* 43, 246–255.

Citation

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Figure

Care Coordination SNF Data Trends: 2006 Year End Key Indicator Comparisons Using 1st Half of 2006 Data*

(Note: Colored cells = change from 1st Half of 2005 where blue = negative; pink = positive)

| | Number of Admissions | Number of Discharges | 31 Day Readmit Rate | Group Comparison | Mortality Rate | Group Comparison | ALOS | Group Comparison | Case Mix Index | Group Comparison |
|--------------|----------------------|----------------------|---------------------|------------------|----------------|------------------|------|------------------|----------------|------------------|
| Facility 11 | 77 | 270 | 25.58 | ↔ | 10.38 | ↔ | 7.34 | ↔ | 1.51 | ↔ |
| Facility 13 | 109 | 184 | 28.8 | ↔ | 7.34 | ↔ | 9.79 | ↔ | 2.23 | ↔ |
| Facility 18 | 38 | 41 | 21.95 | ↔ | 5.26 | ↔ | 5.1 | ↔ | 1.22 | ↔ |
| Facility 17 | 3 | 14 | N/A | | N/A | | N/A | | N/A | |
| Facility 18 | 44 | 156 | 14.1 | ↔ | 6.82 | ↔ | 6.93 | ↔ | 1.45 | ↔ |
| Facility 20 | 60 | 120 | 25 | ↔ | 11.67 | ↔ | 7.25 | ↔ | 1.48 | ↔ |
| Facility 24 | 84 | 265 | 28.3 | ↔ | 13.1 | ↔ | 6.96 | ↔ | 1.48 | ↔ |
| Facility 25 | 45 | 79 | 24.05 | ↔ | 2.22 | ↔ | 7.22 | ↔ | 1.26 | ↔ |
| Facility 50 | 66 | 129 | 21.71 | ↔ | 12.12 | ↔ | 7.39 | ↔ | 1.62 | ↔ |
| Facility 74 | 26 | 58 | 32.76 | ↔ | 11.54 | ↔ | 8.31 | ↔ | 1.57 | ↔ |
| Facility 87 | 134 | 371 | 28.84 | ↔ | 8.96 | ↔ | 6.89 | ↔ | 1.39 | ↔ |
| Facility 108 | 14 | 27 | N/A | | N/A | | N/A | | N/A | |
| Facility 116 | 49 | 134 | 23.13 | ↔ | 8.16 | ↔ | 6.38 | ↔ | 1.18 | ↔ |
| Facility 147 | 84 | 157 | 26.75 | ↔ | 8.33 | ↔ | 6.86 | ↔ | 1.38 | ↔ |
| Facility 153 | 20 | 64 | 17.19 | ↔ | 20 | ↔ | 6.84 | ↔ | 1.36 | ↔ |
| Facility 159 | 71 | 115 | 27.83 | ↔ | 8.45 | ↔ | 6.97 | ↔ | 1.43 | ↔ |
| Facility 170 | 59 | 118 | 22.69 | ↔ | 11.96 | ↔ | 5.9 | ↔ | 1.26 | ↔ |
| Facility 212 | 41 | 107 | 15.89 | ↔ | 0 | ↔ | 7.94 | ↔ | 1.41 | ↔ |
| Facility 216 | 103 | 112 | 37.5 | ↔ | 8.8 | ↔ | 9.27 | ↔ | 3.31 | ↔ |
| Average | 59.3 | 132.7 | 24.0 | | 9.1 | | 7.1 | | 1.5 | |
| Std.Dev | 34.1 | 89.9 | 5.1 | | 4.8 | | 1.0 | | 0.2 | |

* Downward arrows based on outcomes falling 1.0 standard deviations below the average; Upward arrows based on outcomes falling 1.0 standard deviations above the average; Neutral arrows represent outcomes between -1.0 and +1.0 standard deviations.