Insights into Quality Improvement





Introduction

Ontario has now had close to four years of experience with Quality Improvement Plans (QIPs), which started in the hospital sector and, over the course of the last few years, extended to interprofessional primary care organizations and Community Care Access Centres (CCACs). They will soon be rolled out in Long-Term Care (LTC) Homes (some of which voluntarily submitted QIPs this year).

QIPs play a pivotal role in improving the quality of care that is delivered in Ontario. They allow organizations to formalize their quality improvement activities, articulate their goals, and identify concrete ways of achieving their goals.

In order to focus the quality improvement activities that will be underway in Ontario in the coming year, hospitals were asked to consider seven priority indicators, and most addressed them in their plans. However, it is understood that organizations have their own priorities, and are encouraged to consider and address them in their annual QIPs. To account for regional variation, organizations are free to set their own targets for improvement. Although hospitals are not always successful in meeting their targets, most are making progress toward achieving their quality improvement goals.

The purpose of this report is to provide information about what providers in Ontario are focusing on to improve quality of care, what change ideas have resulted in improvement, and where there may be opportunities to learn from others that have achieved gains. The report will hopefully stimulate new ways of thinking about how to improve quality. It is designed to fuel conversations about quality among board members, senior leaders, individual clinical leaders and teams. It will provide a sector-specific look at the priority indicators of the 2014-15 QIPs. Future reports will strive to bring cross-sector perspectives and provide more detailed insights into quality issues.

Although it is difficult to draw direct correlations or ascribe causality from the data, the Key Observations section highlights activities that have been linked to positive gains for each priority indicator. We're shining a spotlight on the ideas that might be most effective for adoption across the entire sector.

Health Quality Ontario (HQO) is committed to ensuring that QIPs are an integral part of the coordinated quality effort in Ontario. We hope this report will help maintain momentum in quality improvement and help organizations benefit from one another's experiences throughout the quality journey.

A By-the-Numbers Look at Hospital Quality Improvement Plans



- **146** Hospitals
- 7 Priority Indicators
- 4 Years of Progress

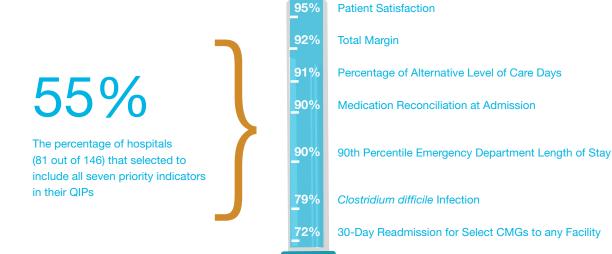
A closer look at hospital-identified progress: Of the hospitals that included a specific priority indicator in their QIPs, here's the number that met or exceeded their targets

- 35 out of 72 (49%): Decreased Clostridium difficle Infection
- 29 out of 65 (45%): Improved Medication Reconciliation at Admission
- out of 70 (41%): Reduced the 90th Percentile Emergency Department Length of Stay
- 40 out of 105 (38%): Improved Overall Patient Satisfaction with Care
- 19 out of 62 (31%): Decreased the Percentage of Alternative Level of Care Days
 - 7 out of 37 (19%): Decreased the 30-Day Readmission Rate to Any Facility
 - 4 out of 94 (4%): Improved Total Margin

A closer look at priorities:

Here's the percentage of hospitals that focused on the following

priority areas in their QIPs



We identified the following themes from the QIP submissions:



Hospitals are prioritizing patient satisfaction

99% of hospitals are working to improve patient satisfaction as described in their QIPs. 95% used the standard questions recommended in the QIP Guidance Document to focus their efforts, up from 83% of hospitals reporting last year.



Hospitals are aligning with quality-based procedures (QBPs)

72% of hospitals referenced QBPs in their QIPs either as a specific focus of quality improvement or as part of change initiatives to support improvement plans for total margin and/or readmissions.



Hospitals are pushing for the highest standards.

Of the hospitals that included the "overall quality of care" question in their QIPs, 11% elected to focus on "top box" results, going above and beyond the recommended "excellent," "very good," and "good" results.

30-Day Readmission Rate to Any Facility (Specific Case Mix Groups)

This indicator measures the rate of non-elective readmissions to hospital within 30-days of discharge (for select conditions and based on case mix groups).

WHY IS IT A PRIORITY?

Readmissions after hospital discharge can be frustrating for patients. When preventable, they are also an inefficient use of hospital resources. While it is difficult to estimate how many of these readmissions could have been avoided, hospitals can reduce their rates by identifying those patients most likely to return to hospital within short periods and improving discharge processes.

CHANGE IDEAS

- · Conducting individualized discharge planning.
- Assessing post-transition risk and activate appropriate follow-up. Before leaving the hospital, individuals at high risk for readmission should have a follow-up call scheduled within 48 hours of discharge and an appointment booked with their primary care team within five days of discharge.
- Promoting self-management and providing effective education to the patient and caregiver.
- Conducting medication reconciliation within 24 to 48 hours of being admitted to hospital.
- Conducting medication reconciliation at discharge: creating the best possible medication discharge plan.
- Focusing on and designing unique programs to address populations that return to hospital most frequently.

30-Day Readmission Rate to Any Facility (Specific Case Mix Groups)

72% selected to include this indicator in their QIPs*

19% met or exceeded their targets

38% improved (but didn't necessary meet) their targets

* Percentage based on a denominator of 138 acute care hospitals

WHAT WE'RE SEEING: Though a portion of hospitals made gains in improving on this indicator, Ontario's readmission rate has seen little improvement overall.

 Between 2009 and 2012, the provincial readmission rate went from 15% in 2009 to 16% in 2012.

KEY OBSERVATIONS

Hospitals noted the following evidence-supported change ideas:

- (1) Conducting individualized discharge planning
 - 14 hospitals (10%) listed individualized discharge planning in their workplan.
- (2) Evaluating post-transition risk and activating appropriate follow-up
 - 30 hospitals (21%) included initiatives aimed at strengthening care transitions for patients at high risk of readmission. Many hospitals identified the use of the LACE tool for risk assessment.
 - 68 hospitals (47%) mentioned participation in Ontario Health Links.
- (3) Promoting self-management and providing effective education to the patient and caregiver
 - 10 hospitals (7%) identified efforts to increase patient self-management.
- (4) Completing medication reconciliation at discharge and creating medication discharge plans
 - 4 hospitals (3%) linked medication reconciliation to readmissions as a key change idea.

Clostridium difficile Infection (CDI)

This indicator measures the rate of newly diagnosed patients with hospital-acquired *Clostridium difficile* infection.

WHY IS IT A PRIORITY?

Clostridium difficile infection is a common problem in health care facilities. Outbreaks occur when humans accidentally ingest spores in a medical facility, which can have a range of detrimental effects – from diarrhea to even death.

CHANGE IDEAS

Prevention and control measures identified by the Provincial Infectious Diseases Advisory Committee (PIDAC) include:

- Using gloves when CDI is suspected.
- Using sporicide (twice daily) in patient rooms and bathrooms when CDI is suspected.
- Double cleaning on discharge/transfer.
- Cleaning supplies for a room with a patient infected with CDI dedicated to that patient's room or disinfected before re-use.
- Effective waste management as an important consideration in preventing cross-contamination (e.g., bedpan-washer units, hygienic bags, etc.).
- Prescribing Fidaxomicin. While more expensive than Vancomycin as a treatment for CDI, Fidaxomicin is equivalent in its initial treatment and is superior in preventing recurrence.

Clostridium difficile Infection

79% selected to include this indicator in their QIPs*

49% met or exceeded their targets

63% improved (but didn't necessary meet) their targets

*Percentages based on a denominator using 146 acute care hospitals

WHAT WE'RE SEEING: In the fight against reducing CDI rates, hand washing helps, monitoring high-risk antibiotics makes a difference, and disposable beds pans and hygiene bags can control communicable infections.

- (1) Hand washing helps. We observed that hospitals successful in reducing CDI over the 2013 period reported rates of hand hygiene (before patient contact) of 80% or higher.
 - This year, 14% of hospitals selected hand hygiene compliance as a key change idea
 - 56% of hospitals selected hand hygiene compliance as an additional indicator in their QIPs
- (2) Monitoring high-risk antibiotics makes a difference. Many hospitals are removing high-risk antibiotics from their drug formularies. Three antibiotics known to increase risk of CDI were specifically mentioned within the progress reports: clindamycin, moxifloxacin, and levofloxacin. Antibiotic stewardship programs have been shown to lower infection rates. Hospitals have lower infection rates when adjustments to broad-spectrum antibiotics are made on the basis of culture results.
- (3) Disposable beds pans and hygiene bags can control communicable infections. A recent study, conducted in partnership with the University of Guelph and Grey Bruce Health Services, determined the hospital's blueware reprocessing was largely ineffective at removing CDI spores in bed pans.

Medication Reconciliation at Admission

This indicator measures the number of patients with reconciled medications as a proportion of the total number of patients admitted to hospital. Every health care organization is at a different stage with respect to conducting and measuring medication reconciliation upon admission.

WHY IS IT A PRIORITY?

Communicating effectively about medications is a critical component of safe care. Medication reconciliation is a formal process in which health care providers work together with patients, families and other care providers to ensure accurate and comprehensive medication information is communicated consistently across transitions of care. Medication reconciliation requires a systematic and comprehensive review of all the medications a patient is taking to ensure that medications being added, changed or discontinued are carefully evaluated.

CHANGE IDEAS

- Forming a multidisciplinary team: The team should include both a group to coordinate the implementation of medication reconciliation and a smaller team at the patient care unit level to conduct tests of change. Clinical champions can significantly contribute to the medication reconciliation process. Hospitals that utilize pharmacy technicians to obtain the best possible medication history report a higher quality patient history.
- Embed medication reconciliation into normal processes of care: The forms that are available to facilitate this process will require modification to ensure they are effective. As with any changes being made, it is best to test them on a small scale and modify them as necessary.
- Considering a carefully staged electronic medication reconciliation (eMedRec) implementation as an important success factor. eMedRec has the potential to reduce errors

Medication Reconciliation at Admission

90% selected to include this indicator in their QIPs*

45% met or exceeded their targets

60% improved (but didn't necessary meet) their targets

*Percentages based on a denominator using 138 acute care hospitals with in patient services

WHAT WE'RE SEEING: Medication reconciliation is extending as a priority beyond patient admission and into transfer and discharge.

• 18% of hospitals are working on reconciling medications at transfer or discharge as a key indicator in their QIPs.

and improve compliance ordering processes and efficiency.

 Securing the commitment of senior leadership: Present progress to senior leadership on a monthly basis. Include data on errors that were prevented by the medication reconciliation process and identify the resources necessary for success.

- (1) Collecting baseline data and electronically tracking it over time promotes progress.
 - Many hospitals have implemented, or are working to implement, Computerized Physician Order Entry and Electronic Medication Reconciliation to enable ongoing monitoring hospital-wide.
- (2) Small pilot tests help introduce new strategies.
 - We've observed that successful hospitals test changes to medication reconciliation processes and measure whether the change has led to improvements before spreading to additional areas or patient groups.
- (3) Commitment from senior leadership contributes to success.

Medication Reconciliation at Admission continued

CHANGE IDEAS continued:

- Consider applying the indicator's methodology to a specific unit or target population. For example:
 - o Patients currently prescribed three or more medications.
 - o All patients 65 years and older.
 - Patients admitted for multiple day, overnight elective surgery.

TIMELINE FOR CHANGE:

Here's an illustration to show how change within the health care system occurs over time. In this case, we've traced the development of medication reconciliation

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2005: Many hospitals actively worked to improve medication reconciliation processes.

2005: Medication Reconciliation is introduced as one of the six original Safer Health Care *Now!* interventions.

2006: Medication Reconciliation is included as a required organizational practice in the AIM (pre-Qmentum) accreditation program.

2011: As part of the consultations conducted by the Canadian Patient Safety Institute, Medication Reconciliation is identified as one of the top 3 patient safety priorities in every jurisdiction by health care leaders across Canada.

2012: Medication Reconciliation at Admission is added as a QIP priority, after years of being the most-selected indicator outside priority indicators by hospitals.

2013: Medication Reconciliation at Admission continues to be a top priority, and hospitals are going beyond to transfer and discharge. As a result, Medication Reconciliation at Discharge is an additional indicator for 2015/16 (or for the future).

Future: Accreditation Canada plans to require all hospital organizations to have fully implemented Medication Reconciliation at all transitions of care by 2018.

Medication reconciliation is broadly embedded across the system.

90th Percentile Emergency Department Length of Stay for Admitted Patients

This indicator measures the length of time between when a patient is triaged or registered in the ED (whichever comes first) to the time when the patient leaves the ED, to be moved to an inpatient bed. A reduction in this amount of time suggests that patient flow has improved.

WHY IS IT A PRIORITY?

Emergency Department length of stay is a critical challenge for Ontario's hospitals. Hospitals are working hard to improve the flow of patients and reduce the length of time patients are waiting in the emergency department for diagnostics, treatment, transfer to an inpatient bed, or discharge.

CHANGE IDEAS

- Providing in-depth education for all health care personnel, patients, and families, informing them that the hospital is not an appropriate place for a long-term care (LTC) bed.
- Improving discharge planning and communication through team rounds, whiteboards and concurrent coding.
- Have discharge options ready in advance of the discharge order for patients who require complex discharge planning.
- Developing an internal escalation process for complex cases.
- Promoting the Home First philosophy, which states that
 patients are in a better position to make decisions about their
 post-hospitalization living arrangements from their homes
 rather than from the hospital.
- Increasing the use and selection of a seniors' residence or home for post discharge care.
- Completing "flash rounds" (e.g., daily discussions with health care teams) for care and discharge planning.

Emergency Department Length of Stay

90% selected to include this indicator in their QIPs*

41% met or exceeded their targets

60% improved (but didn't necessary meet) their targets

*Percentages based on a denominator using 124 hospital corporations with ED services

WHAT WE'RE SEEING: There is wide regional variation in the hours spent in the emergency department before being admitted.

- In one LHIN, 9 out of 10 residents spent a maximum of 37 hours in the emergency department before being admitted; however, in another LHIN, 9 out of 10 residents spent a maximum of 18 hours (January - December 2013).
- On average, 9 out of 10 Ontarians spend a maximum of 28 hours in the emergency department before being admitted (FY 2013).

KEY OBSERVATIONS

- Hospitals that reported the greatest success in reducing ED length of stay attribute the knowledge gained by working with a peer leader as key to their transformation.
- Senior leadership, and particularly CEO involvement, was identified as having the biggest impact on changing culture, by driving accountability for change to all levels of the organization.

The title and definition of this indicator were amended on March 23, 2015

Percentage of Alternative Level of Care (ALC) Days

This indicator measures the percent of inpatient days designated as Alternate Level of Care, which refers to those patients who no longer need acute treatment in a hospital, but continue to occupy acute hospital beds post discharge and awaiting transfer to another care environment.

WHY IS IT A PRIORITY?

ALC is an issue that affects the whole health care system, including the emergency department. There seems to be a connection between ED flow reflected in ED length of stay, and total hospital capacity which is influenced by ALC. ALC days contribute to congestion at transition points and are a drain on hospital resources. Most importantly, patients are not being well-served by being kept in hospital when they no longer need to be there. Focusing on creating a high quality, integrated health system ensures that the right care is delivered in the right place at the right time.

CHANGE IDEAS

- Reviewing discharge planning model every day to identify patients who should be quickly assessed and managed for safe transition to the community.
- Engaging Community Care Access Centres (CCACs) as partners to identify and resolve barriers to discharge early during inpatient stay.
- Having discharge options ready in advance of the discharge order for patients who require complex discharge planning.
- Providing in-depth education for all health care personnel, patients, and families, informing them that the hospital is not an appropriate place to wait for a long-term care bed.

Percentage of Alternative Level of Care Days

91% selected to include this indicator in their QIPs*

31% met or exceeded their targets

50% improved (but didn't necessary meet) their targets

*Percentages based on a denominator using 138 acute care hospitals

WHAT WE'RE SEEING: There is wide regional variation in the percent of ALC days in Ontario

- In the LHIN with the highest ALC days, the rate was almost 25% ALC days. In the LHIN with the lowest ALC days, the rate was almost 10% ALC days Q3 FY 2012/13 – Q2 FY 2013/14.
- Creating an integrated discharge planning review committee for ALC patients or those with more complex discharge needs.

- (1) Regional efforts contribute to individual successes.
 - No hospital can improve its rate on its own. A central referral source can assist in the reduction of ALC days, with a single point of contact that is aware of all the resources available within a community.
- (2) Focusing on patient flow across the organization helps shorten ED LOS and reduce ALC days.
 - Hospitals reporting success created pathways to predict the day a patient will be ready for the next level of care and made the necessary referrals in anticipation.
 - Changes in the ED trickle down to the rest of the organization, or vice versa, and help shift the
 organizational culture to one of continuous improvement.
- (3) Community services promote sustainability.
 - Home First has had the biggest impact on ALC days for hospitals in the short term. Regions need
 to invest in the community in areas most relevant to the local population to sustain the gains.

Total Margin

This indicator measures a hospital's fiscal health. A positive margin indicates that the hospital has a surplus of revenue over expenses and is thus on track with its spending.

WHY IS IT A PRIORITY?

Health system funding reform (HSFR) is currently underway in Ontario to ensure payment, policy and planning follow the patient as they make their way through the health system. The total margin indicator is one of the ways organizations can incorporate HSFR funding policy into their quality improvement frameworks.

CHANGE IDEAS

- Reducing the direct cost of goods: Organizations are encouraged to work with their distributors to achieve lower costs (e.g., group purchasing, shared services, procurement).
 It may be possible to purchase more product in bulk, enter into a longer term agreement or find alternative suppliers to drive costs down.
- Reducing inventory waste: Organizations are often able to avoid spillage or even pilferage by managing inventory more efficiently (see HSFR section on Lean methodology).
- Integrating to serve patients differently: If demand for some services is low and there are other organizations offering these services, consider partnering with another provider so that the same service can be provided at a less costly rate.
- Identifying benchmarks to enable organizations to compare financial information, performance and strategies.

Total Margin

92% selected to include this indicator in their QIPs

4% met or exceeded their targets

48% improved (but didn't necessary meet) their targets

Note: While only 4% of hospitals that selected this indicator met or exceeded their target, this does not infer that 96% of hospitals are not balancing their budgets. For example, hospitals can have a total margin between 0 and 2, which is considered the ideal range, and set an improvement target to drive closer to a total margin of 0. Therefore, it is possible for hospitals to fall short of their improvement targets while maintaining a healthy total margin (between 0 and 2).

WHAT WE'RE SEEING: In hospitals reporting the greatest success at improving their margin, we noticed a common theme of higher volumes of hospital care and shorter lengths of stay. Common strategies for finding efficiencies included establishing LHIN-wide purchasing opportunities to reduce supply costs; reducing sick time and overtime for employees; and implementing patient-based funding.

- A key component of Health System Funding Reform is the development and implementation of Quality Based Procedures (QBPs) to guide high quality, evidence-informed and cost-effective care for specific conditions. The adoption of evidence-informed practices outlined in QBPs have the potential to improve overall patient experience and clinical outcomes, while ensuring that hospital costs align with funding, and therefore contribute to a healthy total margin.
- 72% of hospitals referenced QBPs in their QIPs. Many hospitals are using patient order sets to ingrain the evidence-informed QBP clinical handbooks into practice. Electronic patient order sets are a clinical decision support technology used as a means to reduce variation, improve patient outcomes, and enhance patient experience at the best cost.

Patient Satisfaction

These indicators measure how satisfied patients are with their experiences in hospital, and whether patients would recommend the hospital to others.

WHY IS IT A PRIORITY?

When health care is perceived through the eyes of the patient and their family and/or caregivers, research shows that the quality of care rises, costs decrease, provider satisfaction increases, and the patient care experience improves.

CHANGE IDEAS

- Surveys are an effective method for developing an understanding of the opinions of patients, but many health care providers across the province are going further by engaging and working with patients to design and deliver health care that is linked to their needs.
- · Creating partnerships in hospital settings
 - Bringing patient stories to the hospital board/leadership team.
 - Using patient helpers (i.e., patients/family members that have a particular illness) that are willing to share their knowledge with others.
 - o Helping patients develop self-management skills
 - Ensuring patients/family members are key members of internal quality committees.
- · Educating health care professionals.
- Regularly measuring and providing feedback.
- Creating partnerships with supporting organizations.
- Focusing on communication: including patients in care planning and participating in daily rounding.
- Creating a culture of compassion and service.

Patient Satisfaction

95% selected at least one of these four indicators in their QIPs*

38% met or exceeded their targets

65% improved (but didn't necessary meet) their targets

*Percentage based on a denominator of 146 hospitals

WHAT WE'RE SEEING: Hospitals focused on inpatient satisfaction by promoting clear communication models.

- Hospitals included 271 instances of the recommended priority patient satisfaction indicators in their QIPs, focusing on inpatient satisfaction twice as much as emergency department satisfaction.
- Hospitals also included 41 "other" patient experience indicators in their QIPs.
 - o The top themes of those indicators were clear communication models with adequate discharge information (20%); clinicians taking time to answer questions (17%); respecting cultural sensitivity (15%); continuity of care (12%); pain management (12%); acting with courtesy and respect (10%)

KEY OBSERVATIONS

Several hospitals stated in their progress reports that emergency department satisfaction tended to improve when patients were provided with regular updates on their progress through the department

 Between 2009 and 2012, the percent of people that would definitely recommend their emergency department rose from 58% to 60%, and the percent of people that rated their overall quality of care in the emergency department as "good", "very good", and "excellent" increased from 85% to 87%.

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