Quality Improvement Plan (QIP)

Narrative for Health Care Organizations in Ontario

March 31, 2023
OVERVIEW

HUMBER RIVER HOSPITAL is one of Canada’s largest community acute care hospitals, serving a population of more than 850,000 people in the northwest Greater Toronto Area. The multi-site hospital currently operates out of its Wilson Avenue acute care site, Finch, and Church Street Reactivation Care Centres with a total of 722 beds, over 4,000 employees, approximately 700 physicians, and over 1,000 volunteers.

Affiliated with the University of Toronto and Queen’s University, and a member of the Toronto Academic Health Science Network, Humber River Hospital is North America’s first fully digital hospital. Humber River Hospital’s digital infrastructure includes automated laboratory services, robotics for sorting, mixing, and delivering medications, electronic health records, computerized physician order entry, patient bedside computer terminals, and tracking systems for patients undergoing surgery that provides updates to families through their cellphones. The implementation of these technological and digital solutions has enabled Humber River Hospital to automate information, enhance communication and eliminate paper wastage, as well as provide a connected experience for patients, staff and families.

Humber River Hospital was awarded Accreditation with Exemplary Standing in 2018 and since its opening in 2015 has received numerous awards and accolades for technological advancements and innovation (www.hrh.ca).

Describe your organization's greatest QI achievement from the past year
Despite the unprecedented stress of COVID-19 on the entire healthcare system, Humber River Hospital continues to improve services as outlined in our Quality Improvement Plan.

Pharmacy Program

Humber River Hospital (HRH) continues its excellent track record with a low medication administration error rate of 0.009 percent. This is largely a result of the closed loop medication administration system that is utilized, which delivered over 5 million doses of medications to patients in 2022/2023. Documentation of pharmaceutical care provided by Clinical Pharmacists and optimizing evidence informed pharmacotherapy has continued to be a priority, as an increasing number of patients receive medication teaching and counselling. Polypharmacy medication reviews have also been emphasized to reduce medication burden and avoid potential adverse/side effects. The Antimicrobial Stewardship program has expanded and continues to optimize and promote optimal anti-infective use. Over the last year, HRH Pharmacy Services has continued to focus on mitigating drug shortages and maintaining sufficient medication supplies for all medications including critical medications and COVID-19 vaccines and therapeutics. Continuous quality improvement for infusion pump drug libraries enhanced dose error reduction mode compliance and supported new medications, formats, and care areas. This has also significantly reduced nuisance alarms, which aids in a positive clinician experience with smart pump technology.

Implementation of a Pharmacy-led Best Possible Medication History (BPMH) and Nursing Collaborative Model has led to great improvement in the quality and completion of medication histories in the Cancer Clinic.

Stroke Program

Additionally, HRH’s interdisciplinary stroke team is continually engaged in innovative initiatives focused on improving patient and family experiences on the Acute Stroke Unit (ASU) and in the Stroke Prevention Clinic (SPC). The ASU and SPC interdisciplinary team, including nurses and allied health, collaborated to perform a gap analysis on stroke care and developed and issues-to-action plans in response to best practice recommendations and quality metrics disseminated by the Toronto Stroke Network. Multiple strategies were utilized, including:

• Staff training and education,
• Revision of the stroke order set,
• Optimized utilization of digital workflow,
• Streamlined access to cardio-diagnostic testing,
• Development of a high risk TIA pathway,
• Improvements to acute stroke pathway,
• Development of an ASU admission and transfer criteria,
• Development of patient and family-centered education material, and
• Flagging of stroke patients using a visual “brain” symbol within the centralized electronic system.

Outcomes are aligned with best practice guidelines, which includes a 13% increase in dysphagia screening of eligible patients, a 20% increase in stroke patients allocated into ASU, a greater awareness in staff of best practices, and a reduction in visit wait times for high risk stroke patients.

HRH’s acute care inpatient stroke team received the Standards of
Care QI People’s Choice Award - Recognition Certificate from the Toronto Stroke Network. Achievements and lessons learned were presented in a poster at the Institute of Healthcare Improvement Forum in December 2022.

Seniors Care Program

HRH’s Seniors Care Program has developed and implemented a Dementia and Responsive Behaviours Capacity Building initiative in partnership with LOFT, Regional Geriatric Program, and Alzheimer Society Toronto. The initiative aims to:
- Raise inpatient clinical team’s awareness around responsive behaviours and their meaning,
- Improve staff knowledge and ability to use screening and assessment tools for patients with responsive behaviours,
- Improve staff capacity to implement strategies as per behavior care plan for patients with responsive behaviours,
- Reduce restraint use for patients with responsive behaviours,
- Reduce the number of incidents due to responsive behaviours,
- Contribute towards reduced length of stay in acute care settings and decreased need for long-term care for patients with responsive behaviours, and
- Enhance experiences for patients/families of patients with responsive behaviours at HRH.

To date, the 9-week education program has been spread across 12 inpatient medicine and surgical units, with the aim to include the remaining three units by March 31, 2023.

The initiative included development and automation of the behavioural assessment intervention, eBSO–DOS, and the behavioural care plan. In partnership with Behavioural Supports Ontario, HRH is the first acute care hospital in Ontario to automate the Behavioural BSO-DOS© in the Electronic Medical Record (EMR). This program has been profiled in the Ontario Hospital Association article: Improving Care for those with Dementia: A Data-driven approach. In addition, a poster was presented at the IHI Forum in 2021(Dementia and Responsive Behaviours (D&RB) Capacity-Building in the Acute Care Setting). 98% of staff across seven medicine inpatient units reported that D&RB education increased their knowledge related to assessing and managing responsive behaviours.

In addition, through the generous support of the foundation, over 200 nursing staff have been trained in Gentle Persuasive Approaches (GPA).

Critical Care Program

Humber River Hospital’s (HRH) Intensive Care Unit (ICU) has seen success in quality improvement while supporting both staffing and quality practice. Recruitment in ICUs became a present challenge in response to ongoing ICU volumes, with complexities and retention challenges being led by staff burnout. Staff engagement scores resoundingly indicated that staffing challenges and workload manageability were leading barriers to workplace satisfaction.

In September 2021, HRH collaborated with Toronto Metropolitan University (TMU) to identify high-performing nursing students in their final year of their undergraduate nursing degree to complete their final consolidation and preceptorship in HRH’s ICU. In May 2022, the HRH ICU led the Accelerated Critical Care Certificate
Program (ACCCP), which provided critical care nursing opportunity to said students, who were now new graduate nurses. 40 students were enrolled and successfully recruited into the ACCCP upon graduating with their undergraduate nursing degree. HRH’s ICU then aimed to support these graduates with NCLEX preparation to aid in their acquisition of their Registered Nurse (RN) registration. ACCCP participants were concurrently enrolled into the Durham College Critical Care Nursing program and supported with on-site clinical preceptorship to facilitate their transition into independent nursing practice. The ACCCP successfully recruited 31 new ICU nurses within a 3-month period, in comparison to the 19 external hires over the previous 12-month period. The ACCCP recruitment strategy is a now a leading initiative, inspiring interest from the next cohort of TMU final year consolidating nursing students. Currently, we endeavor to complete a post-implementation survey to assess the satisfaction of the existing ICU preceptors and the newly on-boarded ICU nurses from the ACCCP to seek opportunities to support the ongoing success of the ACCCP. In addition, an abstract poster entitled Accelerated Critical Care Certificate Program: An Innovative Recruitment Strategy was accepted at the Institute of Healthcare Improvement (IHI) Forum in December 2022.

Improved staffing levels will help HRH’s ICU continue to provide services as outlined by our corporate Quality Improvement Plan, and bolster HRH’s response to the community’s need for critical care services.

Collaboration and integration

Seniors Care Program

HRH Seniors Care Program has spread its successful LTC Remote Monitoring Program (PREVIEW-ED(C) and LTC+), supporting seven Homes in North West Toronto as well as two additional LTC homes. Humber’s LTC+ Program links LTC Homes with hospital services, which helps reduce avoidable transfers to the Emergency Department (ED) and hospital admissions for tool-sensitive conditions through the early identification of deterioration status with its proactive virtual supports. The program boasts of a Community of Practice committee comprised of LTC leaders that meet monthly to review key performance indicators (KPIs) and jointly identify opportunities for continuous improvement.

SCOPE (Seamless Care Optimizing the Patient Experience) at Humber River Hospital was launched in January 2021 with 20 Primary Care Providers (PCPs) using this service. The SCOPE model promotes patient-centered interdisciplinary care, which is the foundation of Ontario Health Teams (OHT). SCOPE has the potential to reduce emergency department visits, provide patients with more equitable and pragmatic access to team based care and specialists, establish an effective channel to deliver care according to best practices and emerging standards of care, and provide an opportunity for ongoing physician engagement. Currently, the program boasts over 175 PCPs and over 260 ED visits averted through SCOPE.

The Seniors Care Program has expanded its HEART@home program, an integrated model of care delivered by North Western Toronto OHT partners SE Health, Lumacare, and LOFT. This program uses a bundled care approach, wrapping care around a patient on a 16-week program, which is followed by facilitating the transition to regular Home & Community Care services or alternate destinations.
as appropriate. This program enables discharges for patients who otherwise may have remained in hospital and promotes earlier discharges for patients to community. In 2022/23, the program has transitioned 132 patients to date, including 60 patients with complex care needs across expanded geography.

Humber’s Elderly Assess and Restore Team (HEART) has won a 3M Healthcare and CCHL Quality Team Award 2022 for Quality Improvement Initiative Across an Organization. This prestigious award is given to one team across Canada and is the first of such an award for HRH.

With the generous support of our donors and foundation, we embarked on a HEART research study in 2021. Research on the effectiveness of the HEART program was presented at two international geriatric conferences and published in two scientific journals:


Predictors of Functional Improvement, Length of Stay, and Discharge Destination in the Context of an Assess and Restore Program in Hospitalized Older Adults. Geriatrics.(2022).

This research demonstrated that the HEART program reduces the likelihood of institutionalization, decreases length of stay, and decreases the likelihood of becoming ALC. The second study identified that incorporating predictors of functional improvement optimized patient recruitment given this limited resource. Results have been utilized by HEART leadership to inform clinical practices.

Cancer Care Program

In the Cancer Care Program, the oncology team continues to actively participate in working groups at Ontario Health-Cancer Care Ontario (OH-CCO) to help inform enhancements to systemic therapy standards and cancer care related practices. Partnering with other organizations across the province has provided opportunities for the team to share learnings and develop strategies for continuous improvement.

Similar to previous years, Humber River Hospital’s Integrated Cancer Care Program team members have been fortunate to be selected for various leadership roles representing not only Humber River Hospital but also the Central Region at the provincial level. The Nurse Practitioner for oncology & palliative care has been the Non-Physician Regional Palliative Care Lead, providing expert consultation at subcommittees of the Ontario Palliative Care Network, while spearheading implementation of key palliative initiatives. As of summer 2022, one of the program’s hematologists has been appointed as the Regional Quality Lead for Systemic Treatment, whose role is to work with OH-CCO Systemic Treatment Program to implement OH-CCO’s initiatives and the Ontario Cancer Plan to the regional cancer program, hospitals and other community organizations. From Medical Imaging, one of the interventional radiologists is the oncology Regional Imaging Lead, and another radiologist is the oncology Regional Breast Imaging Lead. Their roles include having oversight on quality initiatives related to diagnostic imaging and helping support implementation of these initiatives across the Central Region.
Ongoing collaborations between expert disciplines is paramount in the care of patients diagnosed with cancer. Introduction of novel therapies and new treatment algorithms have added to the complexity of cancer care and challenges in patient navigation. Multidisciplinary Case Conferences (MCC) help to address some of these challenges, and with the support of both the Medicine and Surgical Programs, these MCC rounds are held twice monthly with our partner centers (eg. Sunnybrook, Princess Margaret Hospital, St. Joseph’s Toronto, and Scarborough Health Network). Surgeons, medical oncologists/hematologists, pathologists, radiologists, allied health, nurses, radiation oncologists attend and participate in the review of patient cases to determine the treatment plan trajectory allowing for the best possible outcome.

The team reviews cases related to the following disease sites: Breast, GI, GU, Endocrine/Thyroid, Lymphoma, and Thoracics. MCC performance is monitored by OH-CCO, and Humber River Hospital has continued to perform at 100% over the last few quarters, exceeding the regional (83% compliance) and provincial target (87%).

We have also consistently achieved provincial annual improvement targets in aspects of patient care related to Surgical Oncology – referral to consult, Systemic Therapy – referral to consult, Cancer imaging wait times, and Pathology post-surgical turnaround for all disease sites. Collective efforts from our Integrated Cancer Care Program partners to meet OH-CCO targets have contributed to Central Region ranking 2nd in the province (out of 14 regions).

To enhance patient safety during systemic therapy, the Cancer Care Clinic implemented the role of pharmacy technicians to enhance the collection of patient’s home medication through the Best Possible Medication History (BPMH) process. PDSA cycles took place to review the nursing-led BPMH process and integrate pharmacy technicians. As a result, a collaborative model was implemented in May 2022 where pharmacy technicians conduct the initial BPMH for all new patients to the Cancer Care Clinic, including those on new systemic treatments. This included training pharmacy technicians, updating the Oncology Management module in Meditech with a new clinical panel, staff training, and workflow redesign to ensure that BPMHs were completed before nursing and physician assessments. The Pharmacy Technician-led model facilitates the timely assessment of drug-drug interactions and ensures that any actual/potential medication adjustments are made at each patient visit to help physicians safely prescribe cancer treatment.

A point-in-time analysis demonstrated the significant improvement in BPMH completion rate for the Cancer Care Clinic. This new model improved nursing workload, streamlined clinic workflow, and increased staff and patient satisfaction. This quality improvement initiative was accepted for poster presentation at the Institute for Healthcare Improvement (IHI) Forum: “Implementation of Pharmacy-Led Best Possible Medication History (BPMH) and Nursing Collaborative Model in Cancer Clinic” in December 2022.

The 13 West Oncology Medicine Unit is working in partnership with Central LHIN Home and Community Care to implement the Health Canada funded RELIEF study. This study allows for the remote self-reporting of symptoms by patients with palliative needs to their healthcare providers. The RELIEF application is designed to monitor select patient symptoms using the Edmonton System Assessment
System revised plus (ESASr+) screening tool at home to provide telephone triage, symptom management, and additional home care support with the goal of preventing unnecessary Emergency Department visits. In preparation for the RELIEF study implementation in 2023, process mapping and patient selection criteria was completed. In addition, nurses on the inpatient unit were provided with education to integrate ESASr+ into their practice.

Medicine Program

Since 2021, the leadership team from the Respiratory and Acute Medicine unit has represented Humber River Hospital in the North Western Toronto- Ontario Health Team (NWT-OHT). The Program Director, Unit Manager, and Clinical Practice Leader provided expert consultation at the sub-committee level and were at the forefront of the implementation of the Chronic Obstructed Pulmonary Disease (COPD) care integrated Pathway. The integrated care pathway aims to follow the journey of COPD patients after discharge from the hospital. The project makes certain that resources/supports/education is available, with healthy clinical interactions mitigating the challenges prior to discharge. Ongoing collaborations between expert disciplines from Black Creek CHC (BCCHC), Humber River Family Health Team, West Park Healthcare Centre (WPHC), Runnymede Healthcare Centre, and Humber River Hospital supported the development of the integrated care pathway and project materials.

On a weekly basis, the COPD case manager facilitates a review of patient cases who meet the criteria for the project. This reinforces the importance of smooth transitions with home care support, ultimately resulting in a decreased number of hospitalizations for COPD.

The 8 East/West units collaborated with the Emergency Department (ED) to improve the admission process, identifying opportunities to minimize delays for discharge, housekeeping, transfer of accountability (TOA), as well as portering. Data collection on all admissions started on Oct 24, 2022 and continued until the end of the Pilot Project (Nov 29 to Dec 11, 2022).

Historically, ED and in-patient units would make multiple phone calls in an attempt to collect TOA, which can take up to a few hours. To minimize unsuccessful attempts, bi-directional escalation to Patient Flow Manager (PFM) ensure nurses are connected in a timely manner for TOA, minimizing delays. Six out of eight porters would also report to ED PFM for task assignment between 2000h-2100h to facilitate patient transfers to help clear out any backlog which may have occurred during shift change (1915h-1945h). Data collected for 245 admissions included Date, Name, H number, Admission Date/Time, Bed Assigned time, Unit/Bed assigned, Bed Discharge time, Housekeeping request time, Housekeeping complete time, BedReady time, Emergency Transfer Record (ETR) completion time, Nurse TOA time, Porter request time, and Patient landed on Unit time. With this collected data, it was identified that 50% of the discharges occurred between noon-1600h. Contributing factors included transport availability, family pick up time or pending test results.

During the Pilot Project, we successfully decreased delays associated with Housekeeping time by 60%, BedReady to ETR by 60%, Porter Delay by 60% and BedReady to patient landed on unit by 17%. We were also able to meet our organizational target 33% of
the time by transferring ED admitted patients to In-patient units within 1hr, as compared to 23% before the Pilot. With this project, we were able to explore the multiple contributing factors associated with admission delays. We aim to continue collaborating with every discipline to ensure timely and safe transfer of patients from ED to the in-patient units.

We are also pleased to report that Humber River Hospital continues to implement initiatives to maintain our Best Practice Spotlight Organization designation, which is provided by the Registered Nurses’ Association of Ontario. We are also concurrently supporting the Northwest Toronto Ontario Health Team as an Ontario Health Team Best Practice Spotlight Organization designate.

PATIENT/CLIENT/RESIDENT ENGAGEMENT AND PARTNERING

Humber River Hospital continues to partner with patients and families in our journey to high reliability together. Based on the Canadian Institute for Healthcare Information’s Canadian Patient Experience Survey results, Humber River Hospital has maintained its top standing in the overall hospital rating for large community hospitals, and first within the Central LHIN hospitals. Humber River Hospital continues to grow our pool of Patient and Family Advisors across the organization through integration at our unit-level continuous quality improvement committees (Reinventing Patient Care Councils), specialty-based patient and family advisory committees (oncology, nephrology, and bariatrics), corporately (Patient and Family Advisory Committee), and the Northwest Toronto Ontario Health Team.

Seniors Care Program augmented the current SMART Discharge package with education materials developed by the interprofessional team in alignment with the Senior Friendly 7 Regional Geriatric Program Framework. This one page handout provides links to the Senior Friendly materials located on the external HRH website, highlighting topics such as cognition, care transition, mobility, pain, medications, and social engagement. Thus far, feedback has been positive as nursing and Allied Health team members use these materials in discharge planning for older adults and their families.

The Cancer Care Clinic launched the Peer-to-Peer Support program on October 17, 2022. In partnership with WellSpring, members from the Cancer Care PFAC underwent formal training as Peer Support Volunteers in June 2022 to prepare for their role. This initiative will support clinic patients through the provision of information, education, and shared experiences to help decrease distress, provide encouragement, and promote self-care. A pilot program will take place for 6 months where members of the Cancer Care Patient & Family Advisory Council (PFAC) will provide support to patients who are living with breast cancer as well as their family/support persons.

As a key component of this initiative, the Cancer Clinic Peer Volunteers and those they are supporting have access to use the Healix platform. Humber River Hospital’s Healix platform is an online tool developed to help patients, care providers, and caregivers manage health and wellness information as well as provide resources on navigating the healthcare system. The Cancer Care team and Peer volunteers actively worked with the hospital’s Quality Improvement and Innovation team to leverage some of the existing components of Healix and provided input to design new
functionalities needed for the Cancer Care Peer Support Program. The Peer Volunteers and the Patient requestors use Healix to connect with each other in this private and confidential platform to arrange follow up support sessions, share community resources, and complete forms and surveys. In the first 3 months of the Peer Support Program, the Peer volunteers have indicated that this initiative in supporting peer patients from Humber River Hospital has provided patients with a safe space to freely share their personal experiences in living with cancer and to validate those feelings. An evaluation of the pilot will be conducted in early spring 2023 and learnings shared with program members prior to expansion to other patients in the Cancer Care Clinic.

The ICU continues the HRH vision to strengthen partnership with patients and families to build high reliability. The ICU Family Satisfaction (FS-ICU) Survey initiative provided opportunity to allow for our patient families to provide feedback on their overall ICU experience. The stress of the COVID-19 pandemic affected the presence of family members in the ICU along with other socio-limiting factors affected opportunities for family members to provide feedback while on-site. In our commitment to patient/family partnerships, the ICU implemented an alternate method whereby a QR code was utilized to facilitate survey completion from the convenience of home. The addition of Mario Castillo Tembaya as our ICU Patient-Family advisor and member of the ICU Reinventing Patient Care Council (RPCC) spearheaded our commitment to family satisfaction in the ICU.

The RPCC leveraged the Critical Care Service Ontario (CCSO) Early Mobilization toolkit to support an early mobilization quality practice re-launch. To support the increased level of engagement, the program augmented the “Move to Improve” scorecard. These scorecards are motivating in nature and were placed in each patient’s room. The initiative promoted the collaboration between clinical teams, patients, and their families towards a realistic patient-centered mobility goal. The interactive scorecard placed in the patient’s room highlighted current mobility status and targeted goals. The greatest improvement was seen in family satisfaction as families felt more involved in their loves one’s (the patient) plan of care. An abstract poster entitled Move to Improve: Increasing Early Mobility in Critical Care Patients at Humber River Hospital (HRH) was accepted at the Institute of Healthcare Improvement (IHI) Forum in December 2022.

Our journey to high reliability also assimilates patients and families into multiple networks and projects, resulting in emerging forms of disruptive innovation for healthcare. Our patient and family advisors have provided us a tremendous amount of support during this past year particularly during the pandemic. The authentic collaboration and genuine investment from our patients, families, and ultimately our community is critical to our success, for which we are deeply grateful as an organization.
PROVIDER EXPERIENCE

Humber River Hospital conducted an Employee, Physician and Volunteer engagement survey in May 2022. There have been significant improvements in the employee, volunteer, and physician participation compared to the previous engagement surveys. For the physician group, in particular, the survey participation rate for this year was 28% higher than in the previous survey. Engagement scores have also remained high for both employees and physicians. This year’s employee engagement score was 3% higher than that of the external benchmark, which was an average employee engagement score of other hospitals within the Greater Toronto Area. Notably, 60% percent of staff felt that the changes implemented as a result of the survey had a positive impact on their work environment.

WORKPLACE VIOLENCE PREVENTION

A core strategic directive at Humber River Hospital is to champion a people-centered workforce with excellent staff and physician engagement. Humber River Hospital has also continued to build on the solid and comprehensive foundation it had established for workplace violence management and prevention. In our ongoing efforts to share best practices relating to Workplace Violence Prevention, Humber River Hospital is collaborating with peer hospitals experiencing challenges with their respective programs, highlighting improvement opportunities based on our program and implementation experiences. This resulted in peer hospitals making improvements that included Root Cause Analysis for all reported incidents, scheduled reminders regarding the use of the Code White button, routine real time location ID badge battery checks, and regular safety updates citing various program components.
PATIENT SAFETY

Humber River Hospital (HRH) prioritizes patient safety and regularly compares organizational performance against provincial benchmarks. At the closing of the 2021/22 fiscal year, HRH’s hospital harm rate was reported at 2.1%, which is significantly lower than the provincial average of 6.2%. As of February 2023, HRH continues to report decreased incidents of harm in comparison to provincial averages for key indicators such as hospital acquired pressure ulcers, venous thromboembolism, patient trauma, etc. Additionally, HRH has not reported any significant increases in unexpected observed deaths over expected deaths when compared with our peer hospitals.

As a commitment to our high reliability journey, HRH is proud to have always included the monitoring and tracking of Never Events in the hospital’s Patient Safety Plan. This year (2022/23 YTD Q1-Q3), we report 10 Never Events (pressure injuries) and continue to work towards enhancing our pressure injury management and prevention strategies.

EXECUTIVE COMPENSATION

In compliance with the Excellent Care for All Act, the Senior Team (President & CEO; Chief Nursing Executive & Chief, People Strategy; Executive Vice President and Chief Clinical Programs; Chief Financial Officer) will have executive compensation linked to the indicator “medication reconciliation at discharge”. This goal supports the key strategic directive of achieving high-reliability.

CONTACT INFORMATION

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SIGN-OFF

It is recommended that the following individuals review and sign-off on your organization’s Quality Improvement Plan (where applicable):

I have reviewed and approved our organization’s Quality Improvement Plan on March 30, 2023

______________
Michael Iacovelli, Board Chair

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Bruce Levitt, Board Quality Committee Chair

______________
Barbara Collins, Chief Executive Officer

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Other leadership as appropriate