Quality of Care NL

Health Care Cost Avoidance and Resource Reallocation/Restructuring

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Quality of Care NL is proud to partner with **Choosing Wisely Canada**



NL Health System



NL health budget (2019/20)

- \$3 billion: population
 526,000
- 38% of provincial budget



High Per Capita Spending





Health System Scoring



Health System Performance



Health System Scoring





Health care value (outcomes/costs) is poor in NL in comparison to other provinces

NL Health System Ranks Low on Health Outcomes Q_{ρ}

Health Care Outcomes



Difference from international average

Significant Demographic Change

St. John's





Labrador



■ Total ■ 0-14 ■ 15-64 ■ 65+

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Source: Finance Gov NL







Our Mission



Quality of Care NL is a CIHR funded research and evaluation program that aims to improve the quality of health care in NL by facilitating evidence-based change to ensure the **right treatment** gets to the **right patient** at the **right time**.

Our partnership with **Choosing Wisely Canada** enables the promotion of guidelines and recommendations to support the reduction of unnecessary tests, procedures and treatments.

Choosing Wisely Targets



Our Partners











Choosing Wisely Canada























A CHAPTER OF THE COLLEGE OF FAMILY PHYSICIANS OF CANADA UNE SECTION DU COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

Our Change Strategies





Value and Economic Assessment

- Developed to assess the value and economic impact of program outcomes
- Interviewed PIs to assess perceptions related to:
 - Cost effectiveness
 - Wait times
 - Direct and indirect medical costs
 - Quality of life
 - Health care resources/teams

Value and Economic Assessment

Results of 2018-19:

Currently 60+ projects ongoing

- 69% of projects were provincial in scope
- 55% of project interventions were less costly and more effective
- 53% of projects expected reductions in wait times
- 79% of projects expected reductions in direct medical costs
- 72% of projects expected improvement in patient quality of life
- 50% of projects expected to free up time for health care teams

Value and Economic Assessment



Projects expecting reductions of >\$100,000 in direct medical costs

Access to Weight Management and Treatment for Obesity in NL: An Innovative Patient-Centred Approach

Antibiotic Overuse

Choosing wisely in the screening and monitoring of hypothyroidism in NL

DKA Project: A focus in DKA prevention in the adolescent and young adult population

Drop the Pre-Op

Enhanced Recovery After Surgery (ERAS) - Thoracic

Enhanced Recovery After Surgery (ERAS) - Colorectal

Potential Unnecessary Laboratory Testing

Predictions of Need for Institutional LTC in NL

Remote Monitoring in Patients with COPD and/or Heart Failure

The effectiveness of a falls prevention program in PCH and risk factors for falls

Utilization of Medicine Beds and ACL in NL

Utilization of Obstetric and Pediatric Acute Care Beds in NL

Utilization of Surgery Acute Care Beds in NL

Cost Avoidance



Specific cost avoidance outcomes:

Over the last 2 years, cost avoidance to the health care system = approximately \$2.8 million

Cost Avoidance



Projects demonstrating specific cost avoidance (estimated)	2018	2019				
Reductions in Unnecessary Biochemical Testing	\$563,644	\$563,644				
Reductions in Pre-Op Testing	\$97,000	\$97,000				
Reductions in Antibiotics Prescriptions	\$88,680					
Reductions in Hospital stays and readmissions - ERAS	\$575,000					
Implementation of Comprehensive Geriatric Assessment	\$140,000					
Reductions in Allergy Testing		\$64,000				
Reductions in Antipsychotic use in LTC		\$210,000				
Reductions in Antibiotics Prescription by Family Doctors		\$460,000				
Total cost avoidance: \$2,858,968						



Cost Avoidance example using a Choosing Wisely Canada Recommendation

Recommendation: "Drop the Pre-op"

Don't perform

- standard baseline laboratory studies (bloodwork),
- ECG or
- chest X-ray

for asymptomatic pre-operative patients undergoing low risk, non-cardiac surgery.

Low Risk Surgery Pre-Operative Testing

Pre-op tests at Health Sciences Centre and St. Clare's



The Cost of Pre-Op Testing in St. John's



Pre-op testing in low risk surgery at HSC and SCMH

	Patients	Creatinine \$8	INR \$12	Hemoglobin \$11	CXR \$68	ECG \$50
2016 (pre)	3997	4235	1573	4756	1135	2787
2017 (post)	4039	4027	1223	4621	607	1711
Reduction N %		208 5%	350 22%	135 3%	528 47%	1076 39%
Cost Avoidance		\$1,664	\$4,200	\$1,485	\$35,904	\$53,800

Actual cost avoidance = \$97,053

Potential Additional Cost Avoidance/Year = \$106,568

Example of Lowering Hospital Stays: Enhanced Recovery After Surgery

- ERAS coordinator started at St. Clare's on 6 East:
 - promoted guidelines, provided training and feedback
- Rebound effect after coordinator left unit
- QCNL designed sustainability strategy with nurses, managers and doctors
- e-Tools were developed to provide visual reminders

Enhanced Recovery After Surgery



Compliance — LOS

Elective bowel resections at St. Clare's: Length of Stay vs. Guideline Compliance

Enhanced Recovery After Surgery

Improvement in patient outcomes and potential for significant cost avoidance:

- Length of stay in hospital decreased (by 1.8 days) for 6 months following implementation compared to 2014
- \$575 000 cost avoidance in hospital stays + readmissions



Example from Community Care: Antibiotic Prescriptions

Rate of Antibiotics Prescription by Family Doctor



Audit and Feedback Academic Detailing



Number of Oral Antibiotics Prescriptions by Family Doctors July 2017-June 2019

Pharmacy Network, province-wide, all ages



Example from Community Care: Reducing Unnecessary Biochemical Testing



Audit and Feedback Academic Detailing

Blood Urea Tests



Removing From Form and Academic Detailing

Monthly Volume of Blood Urea Over Three Years

Removal from Form Academic Detailing



Academic Detailing Only

Monthly Volume of Creatine Kinase Over Three Years

Monthly Volume of Ferritin Over Three Years



Audit and Feedback Academic Detailing

No Change to Form or Academic Detailing



Monthly Volume of Uric Acid Over Three Years

No intervention



Source: Eastern Health

Conclusions



- Currently our health system is providing relatively poor value for money
- We need to deliver good value for health care dollars
- By implementing evidence-based practice guidelines, we can improve outcomes, reduce harms, and reduce costs
- Required changes range from individual projects to larger system-based restructuring

Part 2: Resource Reallocation and Restructuring

Health Spending



Provincial government health expenditure use, 2019/20



Restructuring Health Care





Current Obstetrics Beds

Provincial beds: 115 Provincial births: 4,398 Births/bed: 38





Inpatient Surgery







Current Medicine Beds

Provincial Beds: 527 medicine beds + 132 medicine/surgery beds

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Acute Length of Stay





Medicine Acute Length of Stay Teaching and Large Hospitals



Teaching and large hospital defined by CIHI Excludes ICU LOS 7.6 8 6.0 6.2 -6.1 6 5.7 5 syed 4 3 2 0 Health Sciences St. Clare's Corner Brook Eastern Health Western Health -----Canadian Average (Large) ——Canadian Average (Teaching) Facility Average

Medicine Acute Length of Stay Medium Hospitals



Medium hospital defined by CIHI Excludes ICU LOS



Medicine Acute Length of Stay Small Hospitals



Small hospital defined by CIHI Excludes ICU LOS



Alternate Level of Care





% ALC in NL hospitals is 25% higher than in Canada

Source: CIHI

ALC Length of Stay by Discharge Need



22%

16%

Year: 2018/19







Source: NLCHI

Assumptions for Optimal Bed Use

Lesser of the facility current or Canadian average length of stay

Occupancy of 85%

Alternate level of care of 10%

Acute Care Beds St. John's (HSC & St. Clare's)





Acute Care Beds Rural Eastern Health (hospitals only)





Acute Care Beds Central Health (hospitals only)





Acute Care Beds Western Health (hospitals only)





Acute Care Beds Labrador-Grenfell Health (hospitals only)





Ambulatory Care Sensitive Conditions



Hospitalization rate

Rate per 100,000 population <75 years

Restructuring Health Care







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