Ontario’s Health System Funding Reform – Introduction of Quality-Based Procedures

Imtiaz Daniel, PhD, CPA, CMA
Overview

• Health System Funding Reform for Ontario’s Hospital System
  – Background
  – Overview of the funding formula
  – Review of the goals of the funding reform
  – HSFR Evolution
  – Current Work
Quick Facts
(Ontario’s Population 13,982,984)
Quick Facts: Ontario

145
Total number of public hospital corporations (231 hospital sites)

352,000
Total inpatient surgeries performed in 2015/16

6.3 million
Total number of ER visits in 2015/16

200,000
Total number of hospital employees

1.2 million
Total outpatient surgeries performed in 2015/16

14.2 million
Ambulatory care visits*
Funding in the Past

Health Service Providers received 75-90% of their funding in lump sums (global budgets)

- Few opportunities to change funding to meet the demands of the populations being served
- Little incentive to improve performance or quality

Source: HSFR Governance
Laying the Foundation for Quality: The Excellent Care for All Act (ECFAA)

Enacted in June 2010, ECFAA sets out principles and levers to embed a culture of quality and accountability in the delivery of patient-centred health care services.

The people of Ontario and their Government:

... Believe that the patient experience and the support of patients and their caregivers to realize their best health is a critical element of ensuring the future of our health care system

... Recognize that a high quality health care system is one that is accessible, appropriate, effective, efficient, equitable, integrated, patient centred, population health focussed, and safe

... Believe that quality is the goal of everyone involved in delivering health care in Ontario

... Share a vision for a Province where excellent health care services are available to all Ontarians, where professions work together, and where patients are confident that their health care system is providing them with excellent health care

Source: HSFR Governance
Health System Funding Reform

A historical approach where health service providers received lump sum funding
- Hospitals, on average, received 75-90% of their funding from global budgets
- Majority of the funding is in the form of:
  - Base annualized funding
  - New incremental funding
  - Remaining funding acquired from other sources (i.e. preferred accommodation, alternative revenue etc.)

An evidence-based approach with incentives to deliver high quality care based on:
- Best available evidence and best practices
- Needs of the population served
- Services delivered
- Number of patients

Source: HSFR Governance
Ontario’s Patient-Based Funding Journey

- Similar to other jurisdictions, including Quebec and British Columbia, Ontario has invested in patient-based funding.
- Patient-based funding can include a set of resource allocation methods:
  1. **Activity-based funding** – resource allocation based on the volume of services provided.
  2. **Performance-based funding** – funding is linked to the achievement of specific outcomes (indicators take into account access to care and quality of care).
  3. **Best practice funding** – emphasis is on adherence to a clinical procedure – a care protocol and health outcome – that is recognized to deliver quality and efficiency.

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**2004**
  - Activity-based funding initially targeting hip, knee, cancer, cardiac, cataract, MRI, CT
  - Supported data collection and clinical coaching

**2008**
- Health Based Allocation Model (HBAM) (2007)
  - HBAM approved in principle
  - Extensive international consultation

**2012**
- Emergency Department (ED) Pay for Results (P4R) (2008)
  - Pioneer model for P4R in Canada
  - One-time funding awarded to high volume EDs based on prior year performance on established indicators

**2015**
- Patient-Based Funding (2012)
  - HBAM and Quality Based Procedures introduced
  - Collaborative governance structure formed

**2018**
- Bundled Care (2015)
  - First wave of bundled care launched (further spread in 18/19 to 30+ sites for hip and knee replacement surgery)

**2018**
- Linking Quality to Funding (2018)
  - Project virtually links hospital funding to performance on select quality indicators
Goals: Health System Funding Reform

- **Reflect needs** of the community
- **Equitable allocation** of health care dollars
- Better **quality care** and **improved outcomes**
- **Moderate** spending growth to sustainable levels
- Adopt/ learn from **approaches** used in other jurisdictions
- Phased in over time at a **managed pace**

### Health Based Allocation Model (HBAM)
- Evidence, health-based funding formula
- Enables government to equitably **allocate available funding** for local health services
- Estimates future expense based on past service levels and efficiency, as well as population and health information e.g. age, gender, population growth rates, diagnosis and procedures

### Quality-Based Procedures (QBPs)
- Clusters of patients with clinically related diagnoses / treatments and functional needs identified by an evidence-based framework as providing opportunity for:
  - Aligning incentives to **facilitate adoption of best clinical evidence-informed practices**
  - Appropriately reducing variation in costs and practice across the province while **improving outcomes**

Source: HSFR Governance
Health System Funding Reform (HSFR) - Goal

Source: HSFR Governance
Health System Funding Reform (HSFR) – Current State

- **Global Funding**: $8.4B (52.4%)
- **HBAM**: $5.1B (40%)
- **Quality-Based Procedures**: $2.4B (15.4%)

Source: HSFR Governance
Patient-Based Funding is Made Up of Two Key Components

1. Quality Based Procedures (QBP)
   - Attempt to determine best practice + best cost throughout the system
   - Funding for QBPs is provided to hospitals based on a ‘price x volume’ basis

2. Health Based Allocation Model (HBAM)
   - Evidence-based population-health-based funding formula that uses population and clinical information to inform funding allocations.
   - Two components:
     - Volume (Expected Weighted Cases)
     - Rate (Expected Unit Cost)
HBAM is Made Up of Two Main Components

Acute Inpatient & Day Surgery
Emergency
Complex Continuing care
Inpatient Rehabilitation
Inpatient Mental Health

Service Component

Volume
Expected Weighted Cases

Unit Cost Component

Price
Expected Unit Cost

Sources: HSFR Governance
QUALITY-BASED PROCEDURES
Quality Based Procedures (QBP)

Year 1
- Acute Primary Unilateral Hip Replacement
- Rehab Primary Unilateral Hip Replacement
- Acute Primary Unilateral Knee Replacement
- Rehab Primary Unilateral Knee Replacement
- Unilateral Cataract Day Surgery
- Chronic Kidney Disease (CKD)

Year 2
- Acute Stroke Hemorrhage
- Acute Stroke Ischemic or Unspecified
- Acute Stroke Transient Ischemic Attack
- Acute Chronic Obstructive Pulmonary Disease (COPD)
- Acute Congestive Heart Failure (CHF)
- Acute Non-Cardiac Vascular Aortic Aneurysm
- Acute Non-Cardiac Vascular Lower Extremity Occlusive Disease (LEOD)
- Gastrointestinal Endoscopy
- Chemotherapy

Year 3
- Acute Hip Fracture
- Acute Primary Bilateral Joint Replacement
- Rehab Primary Bilateral Joint Replacement
- Acute Tonsillectomy
- Acute Neonatal Jaundice
- Acute Pneumonia

Year 4
- Knee Arthroscopy
- Cancer Surgery: Prostate
- Cancer Surgery: Colorectal

Year 5
- Non-Routine and Bilateral Cataract
- Cancer Surgery: Breast
- Cancer Surgery: Thyroid

Year 6
- Acute Neonatal Jaundice (Retired)

Year 7
- Non-Emergent Integrated Spine Care
- Non-Emergent Shoulder Surgery
- Integrated Corneal Transplant
- Cancer Surgery: Neurosurgical Brain
- Cancer Surgery: Neurosurgical Spinal
- Cancer Surgery: Thorax Lung
- Cancer Surgery: Thorax Esophagus
- Cancer Surgery: Thorax - other
- Cancer Surgery: Abdominal HPB
- Cancer Surgery: Genitourinary GU
- Cancer Surgery: Hysterectomy

FY 19/20 Considerations
Non-Cancer Hysterectomy; More Cancer Surgeries and Cardiac Care (AVD)
Key Elements of the QBF Episode of Care

• Applying a framework to assess evidence within the episode, building on Evidence-Based Analysis process

• Draw on interdisciplinary expertise to map care trajectory

• Developing a clinical pathway to map out the patient’s journey through the episode of care, with key interventions and clinical trajectories

• Applying a decision analytic tree structure to the episode pathway to incorporate probabilities and decision nodes

• Combining all the above to generate the hybrid episode model: combining pathways, evidence and decision analytics

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Initial Process to Develop the Clinical Pathways

1. Define the patient cohorts for analysis
2. Define the appropriate episode of care in each cohort
3. Based on evidence, recommend clinical best practices and pathways
4. Develop cross-Ontario episode of care analysis based on the defined episode
5. Recommend achievable ‘best practice’ benchmarks
6. MOHLTC to develop a bundled cost for the ‘best practice’ episode of care

Phase I
To be developed by HQO for Nov. 30, 2012

Phase II
Rapid Evidence Review Process

1. Research Question
2. Literature Search
3. Is there an SR?
   - Yes: Review of primary studies (RCT, Obs.) adjusting selection criteria as necessary
   - No
4. Rate SR with AMSTAR
5. Did SR use GRADE?
   - Yes: Did SR GRADE outcomes of interest for RR?
   - No
6. Obtain primary studies from SR with outcomes of interest
7. GRADE Outcome(s) Max 2
8. Report Results
9. Summarize results

Flowchart:
- Research Question
  - Literature Search
  - Is there an SR?
    - Yes: Review of primary studies (RCT, Obs.) adjusting selection criteria as necessary
    - No
  - Rate SR with AMSTAR
  - Did SR use GRADE?
    - Yes: Did SR GRADE outcomes of interest for RR?
      - Yes
      - No
    - No
  - Obtain primary studies from SR with outcomes of interest
  - GRADE Outcome(s) Max 2
  - Report Results
  - Summarize results
Revised COPD pathway model

Mild Exacerbation
- Usual medical care (in ED / outpatient): 19,337
- Assessment node: N = 19,337
- Treatment fails: P = .447
- Go to usual medical care (inpatient)
- Recovers: Home

Moderate Exacerbation
- Usual medical care (inpatient): 23,878
- Assessment node: N = 23,878
- Treatment fails: Go to ventilation (NPPV or IMV)
- Recovers: Discharge planning & full clinical assessment
- Go to usual medical care (inpatient)

Severe Exacerbation
- NPPV: 773
- Treatment fails: Go to IMV
- Recover: Usual medical care (inpatient)
- IMV: 1,051
- Treatment fails: End of life care
- Recover: Discharge planning & full clinical assessment

Legend:
- Care module: □
- Assessment node: ●
- Pathway endpoint: ▲

Patient presents at hospital with suspected exacerbation of COPD:
- N = 43,215
- P = 1.0
QBP Roadmap

Year 1
- Acute Primary Unilateral Hip Replacement
- Rehab Primary Unilateral Hip Replacement
- Acute Primary Unilateral Knee Replacement
- Rehab Primary Unilateral Knee Replacement
- Unilateral Cataract Day Surgery
- Chronic Kidney Disease (CKD)

Year 2
- Acute Stroke Hemorrhage
- Acute Stroke Ischemic or Unspecified
- Acute Stroke Transient Ischemic Attack
- Acute Chronic Obstructive Pulmonary Disease (COPD)
- Acute Congestive Heart Failure (CHF)
- Acute Non-Cardiac Vascular Aortic Aneurysm
- Acute Non-Cardiac Vascular Lower Extremity Occlusive Disease (LEOD)
- Gastrointestinal Endoscopy
- Chemotherapy

Year 3
- Acute Hip Fracture
- Acute Primary Bilateral Joint Replacement
- Rehab Primary Bilateral Joint Replacement
- Acute Tenectomy
- Acute Neonatal Jaundice
- Acute Pneumonia

Year 4
- Knee Arthroscopy
- Cancer Surgery: Prostate
- Cancer Surgery: Colorectal

Year 5
- Non-Routine and Bilateral Cataract
- Cancer Surgery: Breast
- Cancer Surgery: Thyroid

Year 6
- Acute Neonatal Jaundice (Retinopathy)

Year 7
- Non-Emergent Integrated Spine Care
- Non-Emergent Shoulder Surgery
- Integrated Corneal Transplant
- Cancer Surgery: Neurosurgical Brain
- Cancer Surgery: Neurosurgical Spinal
- Cancer Surgery: Thorax - Lung
- Cancer Surgery: Thorax - Esophagus
- Cancer Surgery: Thorax - other
- Cancer Surgery: Abdominal HPB
- Cancer Surgery: Genitourinary GU
- Cancer Surgery: Hysterectomy

Opportunity for improved outcomes and better experiences

Adjusted for:
- Patient complexity
- Quality of health care delivered

Acute Inpatient
Initial QBP focus on acute-inpatient episodes of care

Transition
Work underway to develop QBP for the post-acute phase of care including short stay population

Ambulatory Visits and Emergency Room
Incorporating Emergency Room care that incents appropriate and quality care. Both ER and Outpatient clinics serve as key transition points along the continuum of care

Community
Future goal is to define QBP for clients requiring assistance with their activities of daily living (e.g. long stay population)

Source: HSFR Governance
QBP Funding Model Overview

**LHIN-Managed Elective**
- Acute Primary Unilateral Hip Replacement - $5,214
- Rehab Primary Unilateral Hip Replacement - $9,005
- Acute Primary Unilateral Knee Replacement - $5,188
- Rehab Primary Unilateral Knee Replacement - $8,873
- Acute Primary Bilateral Joint Replacement - $5,222
- Rehab Primary Bilateral Joint Replacement - $7,745
- Unilateral Cataract Day Surgery (Only Direct) - $3,533
- Non-Routine and Bilateral Cataract (Only Direct) - $3,821
- Acute Non-Cardiac Vascular Aortic Aneurysm - $5,342
- Acute Non-Cardiac Vascular Lower Extremity Occlusive Disease (LEOD) - $4,896
- Acute Tonsillectomy - $4,822
- Knee Arthroscopy - $5,270

**Non-Emergent Integrated Spine Care:**
- Non-Instrumented Day Surgery - $5,068
- Non-Instrumented Inpatient Surgery - $3,756
- Instrumented Inpatient Surgery - $5,841

**Non-Emergent Shoulder Surgery:**
- Reverse Arthroplasties - $6,463
- Shoulder Arthroplasties - $4,845
- Shoulder Other - $4,713
- Shoulder Repairs - $5,153
- Integrated Corneal Transplant - $3,871

**LHIN-Managed Non-Elective**
- Acute Chronic Obstructive Pulmonary Disease (COPD) - $5,342
- Acute Congestive Heart Failure (CHF) - $5,110
- Acute Stroke Hemorrhage - $5,452
- Acute Stroke Ischemic or Unspecified - $4,970
- Acute Stroke Transient Ischemic Attack - $5,513
- Acute Hip Fracture - $5,286
- Acute Neonatal Jaundice - $5,432
- Acute Pneumonia - $4,926

Source: MOHLTC
Bundled Care
Patient’s Care Pathway

Referral from Primary Care → Central Intake and Assessment → Decision to Treat Clinical Assessment Node → Preparation for Surgery → Hip & Knee Replacement Surgery*

*Including day surgery

Bundled payment applies

Future potential bundle scope

Appropriate conservative management

Other surgical interventions (e.g. knee arthroscopy)

Inpatient Rehabilitation

Homecare Rehabilitation

Outpatient Rehabilitation

Source: HSFR Governance

Patient Cohort:

- Included in the scope of the bundle are all surgical patients that meet the criteria of the primary unilateral hip and unilateral knee replacement cohort as identified in the QBP clinical handbook.
- Over time the bundle may evolve to include non-surgical options (informed by HQO’s osteoarthritis quality standard, implementation of MSK intake, assessment and management models, etc.)
Pricing approach for the bundled hip/knee replacement QBP

An introductory bundled QBP price has been set, using the QBP pricing methodology for elements of the pathway that have already been priced.

The following considerations were used in the development of the price:

- The bundle price is built so that every surgical patient can receive post-acute rehabilitative care, according to best practice*
- Elements of the pathway have been weighted according to best practice and current utilization
- The outpatient rehab component has been priced based on the Rehab Care Alliance best practice framework and;
- The price will exclude readmissions and revisions; outcomes will be monitored and tracked to inform future bundle scope

FY 18/19 is an introductory year; the price will evolve over time as data gaps are filled

<table>
<thead>
<tr>
<th>Acute / Surgical</th>
<th>Post-acute</th>
<th>Total</th>
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<tbody>
<tr>
<td>weight</td>
<td>IP rehab</td>
<td>weight</td>
</tr>
<tr>
<td>Hips</td>
<td>$8,605(^1)</td>
<td>+</td>
</tr>
<tr>
<td>Knees</td>
<td>$7,666(^1)</td>
<td>+</td>
</tr>
</tbody>
</table>

The ministry will flow funds to the LHIN and will not prescribe the bundle-holder. The bundle holder is responsible for transferring funds to partners and is accountable to work with those partners to deliver the in-scope services.

*Best practices outlined in:

Additional notes:
1. Prices are calculated using a 2015/16 provincial average CMI x cost per weighted case
2. Information comparing 2018-2019 facility level QBP price to the bundle price will be made available to LHINs and nominated teams

Source: HSFR Governance
HSFR Evolution:
Building on Ontario’s Successes
and Charting New Directions
Actual Cost Per Activity

Graph 3A. Acute (IP + Day Surgery)
Cost per WC - From 2012-13 to 2016-17 (HSFR Overall, Based on 2017 Weights)

Graph 4A. ER Cost per WC - From 2012-13 to 2016-17 (HSFR Overall, Based on 2017 Weights)

Trend of Rehab Actual Cost per Weighted Case by Facility Type - From 2012-13 to 2016-17 (Based on 2017 Weights)

Trend of CCC Actual Cost per RWPD by Facility Type - From 2012-13 to 2016-17 (Based on 2017 Weights)
HSFR Evolution
Process for Identifying Options and Recommendations

HSFR Goals

1. Reflect the needs of the community
2. Equitable allocation of healthcare dollars
3. Better quality care and improved outcomes
4. Moderate spending growth to sustainable levels
5. Adopt / learn from approaches used in other jurisdictions
6. Phased in over time at a managed pace

• Current state assessment
  An assessment of progress against established goals conducted through:
  • Surveys and interviews with CCO, OHA, LHIN, MOHLTC staff
  • A review of HSFR evaluations
  • A review of committee proceedings / summaries
  • Two facilitated discussions

• Jurisdictional scan
  An investigation of funding efforts in other jurisdictions since the introduction of HSFR. Jurisdictions of focus included USA CMS, NHS England, Australia and New Zealand.

• Gap analysis
  Based on current state assessment and jurisdictional scan findings, a gap analysis resulted in the identification of several themes which captured the key opportunities to evolve HSFR over the medium-term (i.e., next two to three years).

• Regional sessions
  Themes were vetted with the field during five regional sessions (Mississauga, London, Sudbury, Ottawa, Toronto). Invitations were extended to all LHINs and HSFR hospitals; there were 239 registrants across all sessions with valuable feedback provided.
HSFR – Notable Areas of Progress

• During the current state assessment and regional sessions, the advances achieved through HSFR over global funding were identified.

• Among the areas of progress noted:
  • HSFR has resulted in a more equitable allocation of funding
  • QBPs have been a positive step forward and bundled care pilots are showing promise
  • HSFR has been instrumental in changing culture as evidenced by maintained volumes during periods of funding restraint
  • There have been significant efforts to learn from approaches used in other jurisdictions
  • HSFR has been carefully implemented and adjusted when needed

➤ Although there were many other positive reinforcements of the progress made through the implementation of HSFR, there are opportunities for improvement.
HSFR – Areas of Opportunity
Six Themes Identified

Current state assessment revealed that efforts have focused heavily on formulaic adjustments aimed at ensuring equitable allocation of health care dollars for providers and improving stability.

**HSFR Future State**
Increased emphasis on improving quality and outcomes, integration of care and enabling care that reflects the needs of local communities.

Potential areas of focus over the medium-term:

1. Develop and align incentives supporting appropriate care
   (Supports Goals #3 / #4)

2. Ensure clinical and program infrastructure supports for QBPs
   (Supports Goal #3)

3. Scale and spread bundled care
   (Supports Goal #3)

4. HSFR funding model enhancements, HBAM and QBPs
   (Supports Goals #2 / #3 / #4)

5. Targeted interventions to improve equity
   (Supports Goal #1)

6. Support innovation
Develop and align incentives supporting appropriate care

• Develop a programmatic approach, focusing on QBPs where there is known opportunity (e.g., GI endo, hysterectomy, knee arthroscopy).

• In years 2 (FY2019) and 3 (FY2020) explore funding conditions, assuming there has been preceding dissemination of clinical recommendations and benchmarking data.

• There is commitment to develop an end of year one report that will inform expansion of principles to additional procedures.

• Plan may have a focus beyond QBPs and build on other initiatives such as *Choosing Wisely*. 
Hysterectomy: A Brief Description

• Hysterectomy is a surgical procedure performed to partly or totally remove the uterus.

• There are a number of types of hysterectomies:
  – **Partial or supracervical** hysterectomy: Where the uterus is removed and cervix left intact. As the cervix is left intact, recommended cervical cancer screening is still required.
  – **Complete or total** hysterectomy: This is the most common hysterectomy procedure where the uterus and cervix are removed. A total or sub-total hysterectomy may be accompanied by a unilateral or bilateral salpingo-oophorectomy, where one or both ovaries and fallopian tubes are removed.
  – **Radical** hysterectomy: where the uterus, cervix, upper part of the vagina and parametrium are removed. This procedure is more extensive and may include salpingo-oophorectomy, pelvic lymphadenectomy (removal of lymph nodes), and omentectomy (removal of the omentum).
Hysterectomy: A Brief Description

- Hysterectomy can be performed using different and combined approaches:
  - **Abdominal** hysterectomy involves removal of the uterus through an incision on the lower abdomen.
  - **Vaginal** hysterectomy involves removal of the uterus through the vagina with no abdominal incision.
  - **Laparoscopic surgery** is a minimal access procedure, where the uterus is removed using a “keyhole” approach.
    - This approach involves inserting a surgical telescope (laparoscope) through a small incision in the abdomen and other instruments inserted through two or three other keyholes.
    - **This type of surgery** can be combined with a vaginal approach and can also be performed with the use of a surgical robot.
International best practice recommendations on hysterectomy surgical approach

ACOG Committee Opinion (June 2017): Choosing the Route of Hysterectomy for Benign Disease

For patients with non-cancerous indications for hysterectomy:

- **Vaginal hysterectomy** is the approach of choice whenever feasible. Evidence demonstrates that it is associated with better outcomes when compared with other approaches to hysterectomy.

- **Laparoscopic hysterectomy** is a preferable alternative to open abdominal hysterectomy for those patients in whom a vaginal hysterectomy is not indicated or feasible.
Non Cancer Hysterectomy

Quick Facts

• 11,674 cases across 58 HSFR hospitals in 2017/18
  – An additional 368 volumes in non-HSFR hospitals
  – Just over 75% of hysterectomy QBP volumes are performed for non-cancer indications

• 91% of surgeries are performed in an acute inpatient setting
  – Change from 2.7% outpatient to 9.5% outpatient over the last 5 years

• The QBP cohort can divided into categories based on extent or based on approach
  – Extent Categories: Partial, radical and total hysterectomy
  – Approach Categories: Open abdominal, Laparoscopic (via incision), Laparoscopically assisted vaginal, Vaginal (per orifice)
International best practice recommendations on hysterectomy surgical approach

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- **Laparoscopic hysterectomy** is a preferable alternative to open abdominal hysterectomy for those patients in whom a vaginal hysterectomy is not indicated or feasible.
There are substantial variations across LHINs in hysterectomy surgical approach for non-cancer diagnoses.
Variation in hysterectomy rates: International comparison

OECD comparison of national hysterectomy rates (2008)

Figure 4.4. Age-standardised rates of hysterectomy per 100 000 females, 2008 or latest year available

Per 100 000 females

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate</th>
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<tbody>
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<td>Spain</td>
<td>105</td>
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<td>Scotland</td>
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<td>Canada</td>
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<td>United States</td>
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Ontario crude rate in 2016/17: 225 per 100,000
Hysterectomy QBP Volume Trends

Inpatient and Outpatient Hysterectomy QBP volumes in HSFR Hospitals

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<tr>
<th>Year</th>
<th>Cancer Hysterectomy</th>
<th>Non-Cancer Hysterectomy</th>
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<tr>
<td>2013</td>
<td>272</td>
<td>3060</td>
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<tr>
<td>2014</td>
<td>336</td>
<td>12021</td>
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<td>2015</td>
<td>11803</td>
<td>416</td>
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<td>2016</td>
<td>596</td>
<td>11412</td>
</tr>
<tr>
<td>2017</td>
<td>847</td>
<td>1104</td>
</tr>
</tbody>
</table>
Hysterectomy QBP Volumes by LHIN

Hysterectomy QBP volumes in HSFR Hospitals by LHIN, 2017-18

- Cancer Hysterectomy
- Non-Cancer Hysterectomy
A declining trend in partial hysterectomies is observed for both cancer and non-cancer indications.
Non-Cancer Hysterectomy Subgroups and Procedure Types

- Last year the QBP TTG suggested separate prices be established for cancer and non-cancer hysterectomies and also that pricing by subgroup be examined.

- The definitions applied to create any patient stratifications for QBP pricing come from clinical recommendations on meaningful groupings, while individual price points for subgroups within a QBP are established if they meet the criteria mentioned on slide 8.

- The extent of the hysterectomy is one meaningful stratification, but there are also two other ways to proceed (like Approach or Indication) that may put us in a better position to align with international guidelines and soon to be released national guidelines.

### Extent
- Total hysterectomy: 96%
- Partial hysterectomy: 4%

### Approach
- Open abdominal: 24%
- Laparoscopic (via incision): 32%
- Laparoscopically assisted vaginal: 29%
- Vaginal (per orifice): 15%

### Indication
- Fibroids: 28%
- Uterine Bleeding: 25%
- Prolapse: 22%
- Other: 25%
Considerations for FY 19/20

Non-Cancer Hysterectomy:

- Ensures consistent funding stream for Hysterectomy, cancer and non-cancer; potentially introducing a new QBP funding method
- Paves the way for future efforts to address wide regional variations in non-cancer hysterectomy rates
- Signals to field intention to apply appropriateness lens
Questions or Comments?

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Appendix
Health System Funding Reform (HSFR) – Current State

- About 40% of government funding is targeted funding – linked to selected services or beds in hospitals.
- HBAM, performance-based and global funding (remaining 60%), is non-targeted; that is, hospitals use this funding to support all services.

**2018-19 Funding in $M**
- Bedded Capacity, $187
- Wait Times, $264
- CCO (non-QBP), $619
- Global Funding, $7,125
- Priority Programs and Critical Care, $2,313
- QBPs (LHIN/CCO), $2,729
- HBAM, $5,135
Expected Unit Cost

Unit Cost Component

Price

Expected Unit Cost

The base adjustment is the same for all hospitals

Cost Modifiers

<table>
<thead>
<tr>
<th>Care-Type Module</th>
<th>Teaching</th>
<th>Isolation (Distance)</th>
<th>Economies of Scale</th>
<th>Specialized Services</th>
<th>Hospital Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inpatient &amp; Day Surgery</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
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</tr>
<tr>
<td>Emergency</td>
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<tr>
<td>Complex Continuing Care</td>
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<td></td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Inpatient Rehabilitation</td>
<td>✓</td>
<td></td>
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<td></td>
<td>✓</td>
</tr>
<tr>
<td>Inpatient Mental Health</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Important to Know

Specific adjustments for expected unit cost include:
- Teaching
- Isolation (Distance)
- Specialized Services (Level of Care)
- Hospital Type
- Economies of Scale

Sources: HSFR Governance
Expected Weighted Cases

Service Component

Volume

Expected Weighted Cases

Age and Gender

SES

Rural Geography

These factors influence health service use.

Sources: HSFR Governance
Expected Expenses

(Expected Weighted Cases $\times$ Expected Unit Cost)

Important to Know

The main output of HBAM is expected expenses. Expected expenses are determined by multiplying ‘expected weighted cases $\times$ expected unit cost’.
How Does HBAM Work?

Important to Know

Overall, funding is impacted not only by a hospital’s own performance but also the performance of all other hospitals in the province (i.e. a hospital’s change in HBAM expected expenses does not have a 1:1 correlation with their change in funding).

Year-over-year changes in HBAM funding are primarily driven by a hospital’s year-over-year changes in expected expenses as compared to the provincial average.

Each hospital’s percent of HBAM expected share (as per above) is then multiplied by a set provincial envelope of money ($5.1 billion) to determine the hospital’s HBAM funding.

Sources: HSFR Governance
Calculating HBAM Share

Revenue Adjustments

- PCOP adjustments (declining balance, etc.)
- QBP & FMH Expenses
- Non-QBP CCO Related Expenses
- One-Time Related Expenses
- % Base Funding Expense

Adjusted HBAM Expected Expenses

Hospital’s Pre-Mitigation HBAM Allocation

Hospital’s % HBAM Expected Share

$5.136B

Source: HSFR Governance

Confidential - Not for Distribution
Contribution to the HBAM Envelope

Individual Hospital Level

- Hospital 2016/17 Closing Base
- QBP Carve Out
- PCOP declining balance facility cost adjustment

Provincial Level

- Sum of all Hospital’s Adjusted Closing Base
- 37.04% Proportion of HBAM Funding for Hospitals

HBAM Contribution

- Adjusted Hospital 2016/17 Closing Base
- 37.04% Proportion of HBAM Funding for Hospitals

$5.136B Funding Envelope

Source: HSFR Governance
Next Steps

1. Develop and align incentives supporting appropriate care
   
   **Next Steps:**
   
   • Develop a programmatic approach, focusing on QBPs where there is known opportunity (e.g., GI endo, hysterectomy, knee arthroscopy).
   
   • In years 2 (FY2019) and 3 (FY2020) explore funding conditions, assuming there has been preceding dissemination of clinical recommendations and benchmarking data.
   
   • There is commitment to develop an end of year one report that will inform expansion of principles to additional procedures.
   
   • Plan may have a focus beyond QBPs and build on other initiatives such as *Choosing Wisely*.

2. Ensure clinical and program infrastructure supports for QBPs
   
   **Next Steps:**
   
   • FY2018/19 – conduct an analysis of existing clinical networks versus the recommended clinical network / oversight model (gap analysis). Develop a prioritized plan for implementation.
Next Steps

Scale and spread bundled care

Next Steps:

• Finalize a five-year plan to take IFM pilots and move to provincial level
  • Identify conditions that will benefit from a bundled approach
  • Establish a strategic advisory group with responsibility for work plan development
  • Identify and address conditions that will ensure an enabling environment
  • Assess the impact on inconsistencies in care and develop mitigation strategies
Rationale: there is a desire to build on the successes of funding reforms while reducing model complexity and establishing a direct link with new policy directions.

Four opportunities to enhance the HSFR funding model were presented at regional sessions:

1. **QBP volume strategy**
   Establish a QBP volume allocation approach informed by estimations of population need.

2. **QBP pricing strategy**
   Strengthen the link between best practices and QBP pricing, ensuring pricing reflects value and patient outcomes.

3. **Complement model enhancements with regular assessments of hospital financial health**
   Create a financial health dashboard to be used by hospitals, LHINs, and the Ministry when assessing hospital concerns regarding under-funding.

4. **HBAM allocation improvements**
   In the short term, to give time for longer-term re-design, implement transitional approaches to the allocation portion of HBAM while maintaining the drive for evidence-based funding.
Targeted interventions to improve equity

**Rationale:** there are known health inequities which are difficult to address using a formulaic approach.

**Proposed Approach (presented as options at regional sessions):**

- Establish a measure of health need leveraging work from CIHI, PHAC, ICES, and others with respect to the measurement of health and health care equity.
- Establish special purpose funding targeting limited populations where there are known inequities.
  - A small number of LHINs would be responsible for engaging key stakeholders in developing an appropriate plan to address unmet community needs.
- Consider the implementation of innovative models of care to address inequities, including care models that integrate health and social care.

**Next Steps:**

- Year one (FY2018/19) – develop an implementation plan.
- Over the long-term leverage work underway to gather data regarding health equity attached to health card renewals.
Innovation

**Rationale:** there are examples where HSFR is actively hindering innovation:

- Example 1: Current funding models prioritize QBP volumes over HBAM, but what is funded through a QBP is specific, discouraging the shift of patients to outpatient settings
- Example 2: There are currently too few incentives for hospitals to conduct innovative, minimally invasive procedures over more traditional, invasive treatment options

**Proposed Approach:**

- Formalize a process for the field to communicate care and technology innovations.
- Partner with Office of the Chief Health Innovation Strategist to develop and implement innovative

**Next Steps:** Continuing to be informed by the work of the HSFR Secretariat in FY2018/19, further explore how HSFR can support innovative solutions.
Enablers and barriers

Several enablers and barriers to achieving HSFR goals were repeatedly identified during discussions across all regional sessions. The following were deemed sufficiently noteworthy to justify inclusion in a final report.

Physician Payment

- Raised as an issue at every regional session and across themes but particularly during discussions around the appropriate care and bundled care themes.
  - “When you start looking at medical bundles – physician remuneration is a significant roadblock; it is the one unfunded role.”

Moving Beyond the Acute Care Sector

- To fully achieve the goals of HSFR, there is a need to look beyond the acute care sector with further focus on community providers.
- Thinking ahead, IFMs will rely heavily on community resources, access to primary care, social determinants of health.
- Look beyond the MOHLTC to Ministry of Housing etc.

Assistance with Legislation / Regulation Barriers

- Example: Providing hospitals with the ability to subcontract care that can be provided in the community for low cost.

Health Information Systems (HIS)

- HSFR currently penalizes investments in HIS.