Quality-Based Procedures (QBP): Carve-Out and Pricing

Background

Quality-Based Procedures (QBPs) use an evidence-informed approach to reimburse hospitals for discharged patients at rates established for groups of cases with similar clinical profiles and resource requirements. Funding is allocated to hospitals for specific procedures based on a 'price x volume' basis, which is then adjusted for patient complexity. This approach aims to reimburse hospitals for both the types and quantities of patients treated.

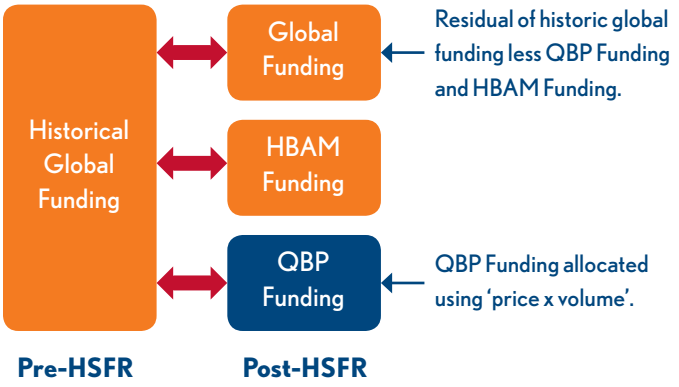
Important to Know

Funding for QBPs is provided to hospitals based on a 'price x volume' basis.

What is a QBP carve-out?

The original policy goal of HSFR was to shift approximately 70 percent of historical global funding to Patient Based Funding (PBF) while leaving 30 percent of funding as a global allocation. This shift from a global funding system towards a PBF model required that a separate QBP pot, representing the amount of funding to be distributed using the QBP methodology, be 'carved-out' from the historical global funding pot. See Figure 1.

Figure1: Understanding how HSFR introduced a separate QBP funding pot through carve-out.



The calculation of each hospital's QBP carve-out is determined by multiplying cost per weighted case (CPWC) by volume*. The determination of CPWC is based on the Ontario Cost Distribution Methodology (OCDM). The OCDM uses service recipient categories related to each respective QBP. For example, the carve-out for inpatient rehabilitation for primary unilateral hip replacement was based on costs from the OCDM's 'Inpatient Rehab' service recipient category. This approach used total costs which included both direct (e.g. salaries, supplies) and indirect (e.g. education, administrative and support services, research) costs. This ensured that hospitals were held accountable for efficiencies in both direct and indirect expenses.

* Simplified for illustration purposes. Carve-out also includes subtraction of Health-Based Allocation Model (HBAM) cost modifiers for the rate. On the other side, QBP funding, the price also has this subtraction by HBAM cost modifiers. The idea behind this is to leave behind, in carve-out, those high costs of providing care that are hospital specific and not related to the QBP.

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How was QBP pricing determined?

Despite a provincial upward cost curve with respect to health, the Ministry of Health and Long-Term Care (Ministry) realized that the cost of providing care is driven by many factors, some within and some beyond hospitals' control; and in fact there were hospitals delivering excellent care in a highly cost-effective manner. Accordingly, the Ministry determined that cost should not be synonymous with price in the QBP pricing strategy.

Prices for QBPs managed by Local Health Integration Networks (LHIN) were determined using the Ontario Case Costing (OCC) average total CPWC. This calculation was based on information from all hospitals that reported OCC data for QBPs. While costs for hospitals that did not report OCC data were not included in the calculations of average total CPWC, OCC average total prices were applied to all hospitals that provided QBPs. With this approach (i.e. using average total OCC prices for each QBP), hospitals incurring costs for a particular QBP higher than the average price would be motivated to deliver services at a lower cost. This was similar to the way the HBAM model was developed to promote unit cost efficiencies.

The current funding rates (i.e. prices) for LHIN-managed QBPs are as follows:

Important to Know

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**

Note: For a summary of Cancer Care Ontario's QBP funding rates, please visit www.cancercare.on.ca

What is the Case Mix Index (CMI)?

In an attempt to recognize differences in complexity and patient acuity between various hospitals, QBP volumes are multiplied by a hospital-specific ratio that ultimately determines total weighted cases. This ratio is also known as the Case Mix Index (CMI). For example, if a hospital was allocated 186 acute primary unilateral hip replacement volumes from their LHIN and was given a CMI of 1.70 based on the complexity and acuity of their patients, the hospital's total weighted cases would be 316 (186 cases X 1.70 CMI). The hospital's funding would therefore be calculated by multiplying the total weighted cases by the QBP funding rate (i.e. price).

Hospital-specific CMI changes can be attributed to several factors including:

- Differences in patients seen at that hospital (e.g. their clinical characteristics);
- Changes in the provincial weights (e.g. if hip replacements, due to clinical changes, required less resource intensity in a given year); and
- Clinical specifications used to define a particular QBP.

Important to Know

A hospital's CMI may change from year-to-year. Hence, a hospital's funding for a QBP in a given year may be different even if the LHIN allocated volumes and pricing do not change. This occurs because changes in a hospital's CMI will result in a different total weighted case calculation.

Resources

For additional QBP carve-out and pricing education materials, visit https://hsimi.on.ca/hdbportal/node/598 on the Ministry of Health and Long-Term Care, Health Data Branch, Health System Information Management and Investment (HSIMI) website.

For Additional QBP tools and resources, visit http://www.hqontario.ca/Quality-Improvement/Our-Programs/QBP-Connect on the Health Quality Ontario website.