Best Care is a Right, not a Privilege

Quality-Based Procedures

Person-Level Health Care Costing

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Ontario

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Activity Based Funding (ABF)

What is ABF?

- Method of funding health-care providers (i.e. acute-care hospitals, long-term care facilities, rehabilitation facilities) for the care and services they provide[1]
- Under ABF, health providers receive funding based on the number and type of "activities" they perform[2]
- Payment model based on the volume and type of services provided to each patient for **hospital care**. Its main objectives are to increase efficiency and reduce wait times[3]

ABF can be defined by two features:

- A case mix system is used to describe hospital activity and to define its products or outputs; and
- A payment price is set for each case mix group in advance of the funding period and payments to the hospital are made on a per case basis

References:
[1] [CIHI: https://secure.cihi.ca/free_products/ActivityBasedFundingManualEN-web_Nov2013.pdf]
[2] [http://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2012/01/CCPA-BC_ABF_2012.pdf]
[3] [http://www.cadth.ca/products/environmental-scanning/health-technology-update/ht-update-12/activity-based-funding-models-in-canadian-hospitals]

Benefits and Risks of ABF

What are benefits of ABF?

- Focus on improving clinical processes and patient outcomes
- Improving quality
- Reducing variation in both costs and clinical practice
- Ensuring pricing and funding transparency

What are risks of ABF?

- More potential fluctuation in budget dollars
- Hospitals may be inclined to treat simple cases over complex cases
- Over-servicing
- Upcoding (coding patients in more resource-intensive groups for increased compensation)

ABF Pricing

Pricing in ABF:

- Setting payment rates to equal the average cost provides incentives for hospitals with above-average costs to reduce those costs
- Payment rates that differ from average cost may be appropriate when specific changes in hospital behaviour are desired, such as strong incentives to improve efficiency in providing care, increase access to care or improve quality of care
- Pricing can be used as one of the levers to change volumes or costs

Global Provider-Focused Funding Model to Person-Centred Model

Global Funding

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

Health System Funding Reform (HSFR)

Two key components with different intents

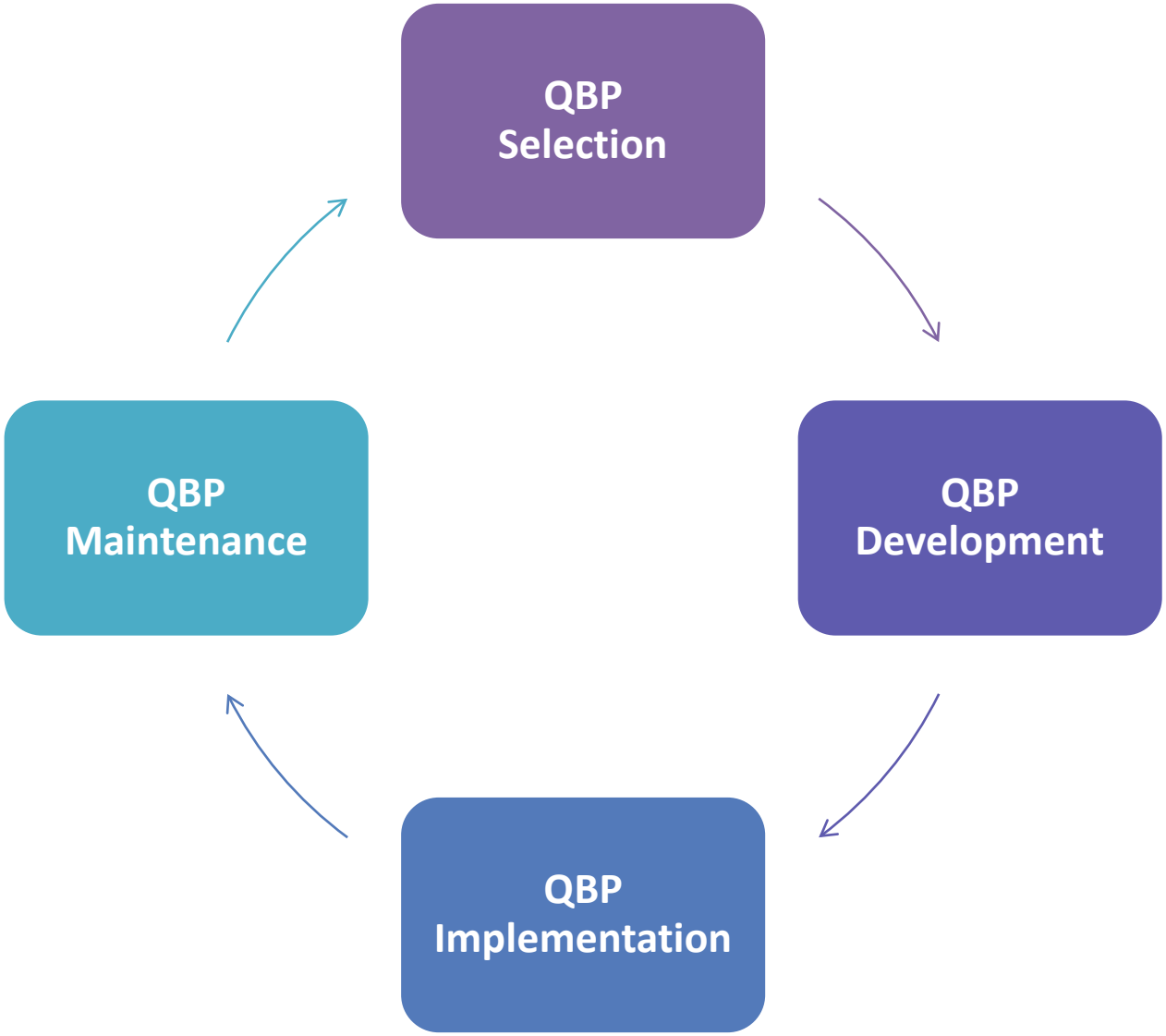
Health Based Allocation Model (HBAM)

- Evidence-based, 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 used

Quality-Based Procedures (QBPs)

- Specific groupings of health services (e.g. cataract, hip replacement)
- Improves outcomes by reducing practice variation while driving efficiency by paying for only high quality care
- Allocation at specific groupings level
- Set Price and Volume

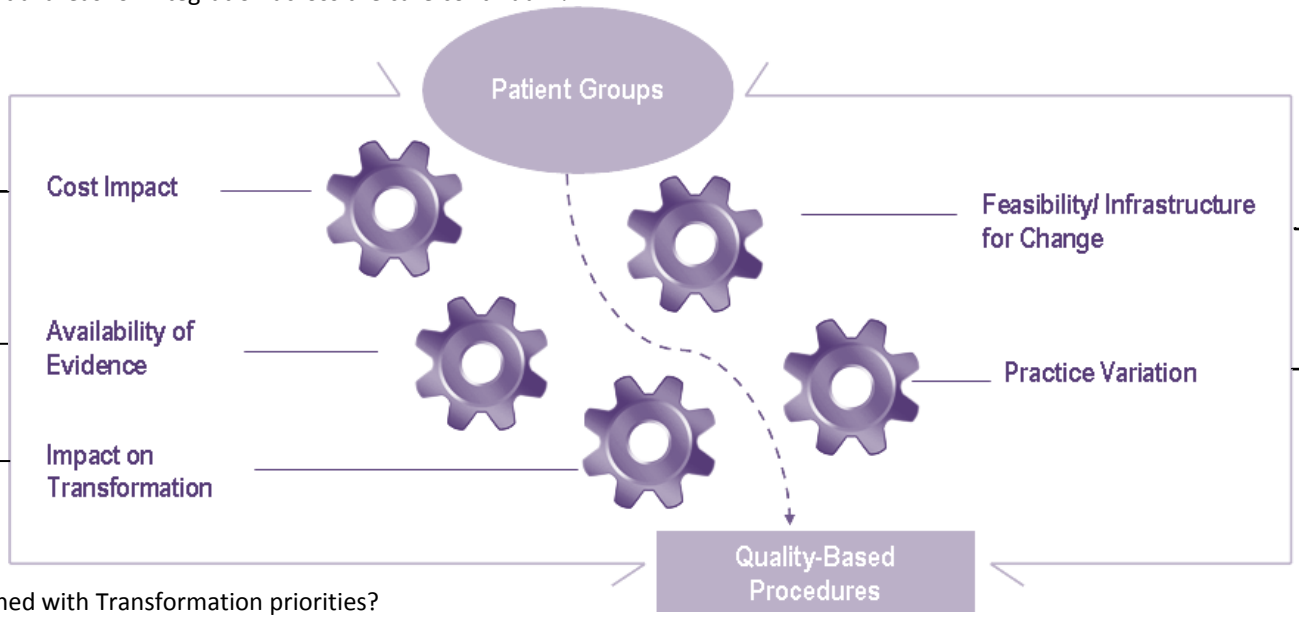
The QBP Cycle



QBPs: Selected using an Evidence-Based Framework

- Does the clinical group contribute to a significant proportion of total costs?
- Is there significant variation across providers in unit costs/ volumes/ efficiency?
- Is there potential for cost savings or efficiency improvement through more consistent practice?
- How do we pursue quality and improve efficiency?
- Is there potential areas for integration across the care continuum?

- Are there clinical leaders able to champion change in this area?
- Is there data and reporting infrastructure in place?
- Can we leverage other initiatives or reforms related to practice change (e.g. Wait Time, Provincial Programs)?



- Is this aligned with Transformation priorities?
- Will this contribute directly to Transformation system re-design?

- Is there a clinical evidence base for an established standard of care and/or care pathway? How strong is the evidence?
- Is costing and utilization information available to inform development of reference costs and pricing?
- What activities have the potential for bundled payments and integrated care?

- Is there variation in clinical outcomes across providers, regions and populations?
- Is there a high degree of observed practice variation across providers or regions in clinical areas where a best practice or standard exists, suggesting such variation is inappropriate?

Clinical Expert Advisory Groups: Developing Best Practices

Agencies

Agencies (e.g. Health Quality Ontario) convene Clinical Expert Advisory Groups for each selected QBP

Clinical Expert Advisory Groups (Advisory Groups)

Members include multi-disciplinary (i.e. specialists, family physicians, nurses, health disciplines, decision support managers), multi-sectoral and cross-provincial representation, as well as patients

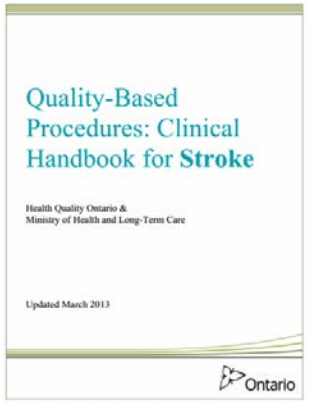
Deliverables

Include:

- Defining patient inclusion/ exclusion criteria
- **Developing best practices**
- Recommending performance indicators and implementation strategies for the defined episode of care.

These deliverables have been compiled in a 'QBP Clinical Handbook'

QBP Clinical Handbooks



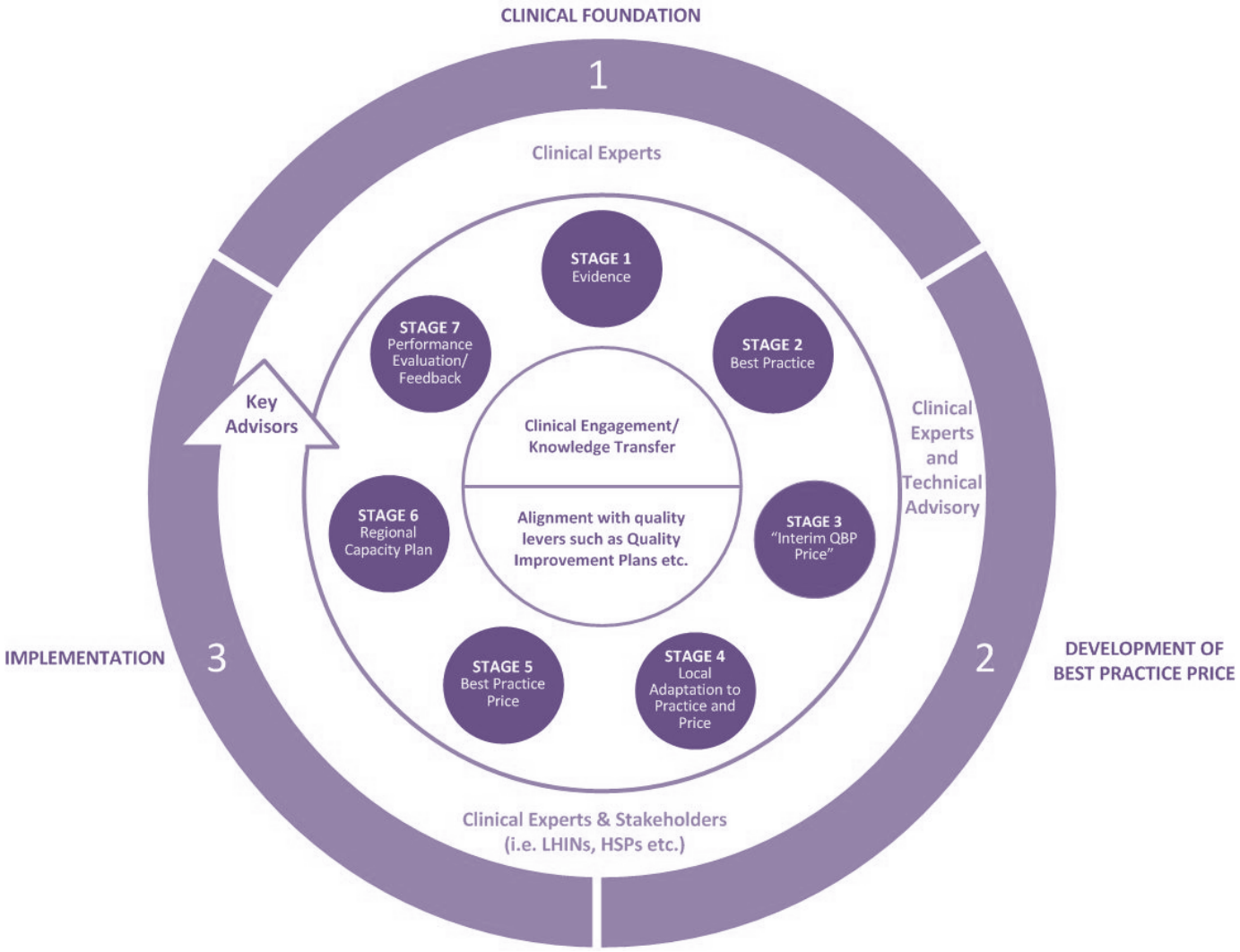
What are QBP Clinical Handbooks?

- Serve as a compendium of the evidence-based rationale and clinical consensus guiding QBP implementation
- Intended for a broad clinical and administrative audience
  - Do not mandate health care providers to provide services in accordance with the recommendations
  - The recommendations included are not intended to take the place of the professional skill and judgment of health care providers

Key Principles

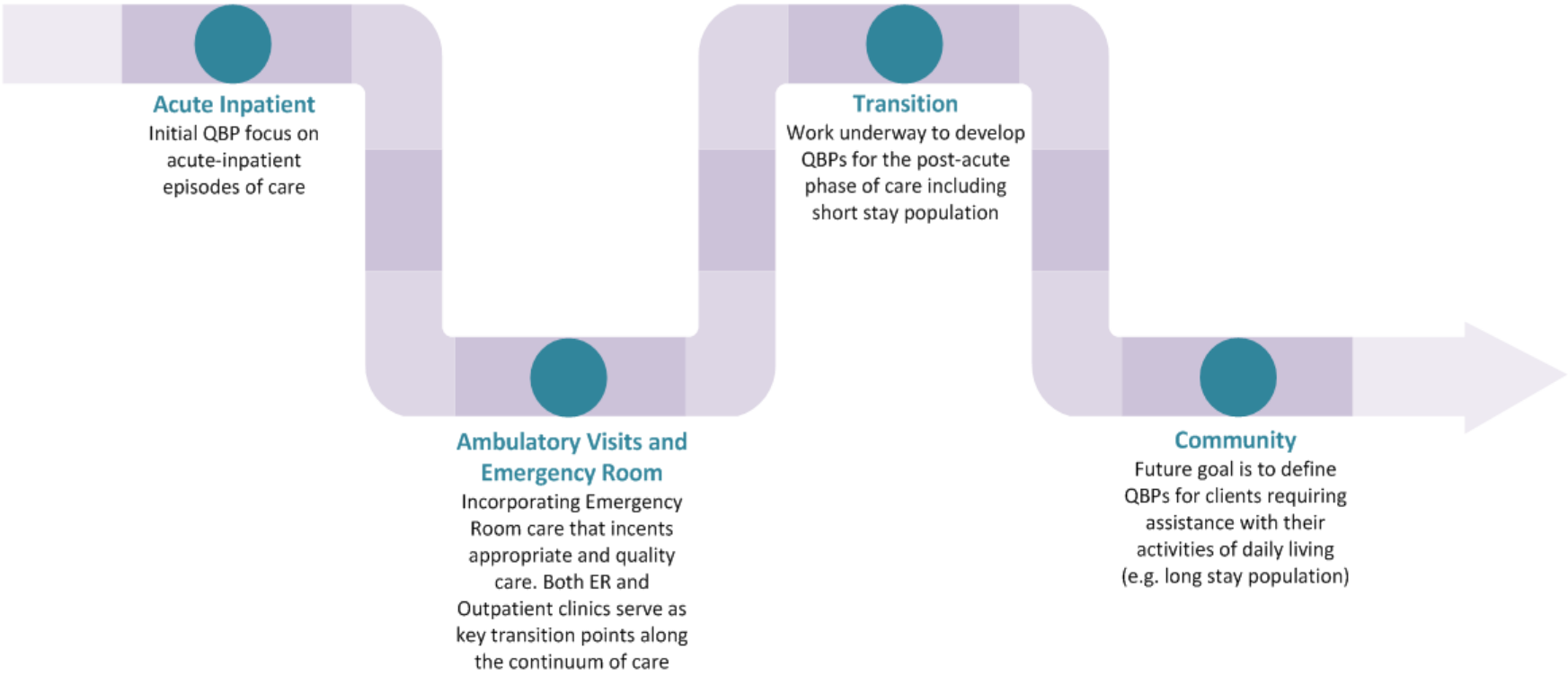
- Recommended practices should reflect the best care possible, regardless of cost or barriers
  to access
- Costing or pricing are out-of-scope
- Recommended practices, supporting evidence, and policy applications will be reviewed and updated at least every two years

QBP Development and Implementation: A Staged Approach



The QBP Roadmap

As QBPs are developed across the continuum of care, different approaches will be required for addressing the varying needs of patient / client populations



QBP List: Updated January 2015

Year	QBPs	
FY 2012-13	1. Primary hip replacement* 2. Primary knee replacement*	3. Cataract 4. Chronic kidney disease
FY 2013-14	5. Chronic obstructive pulmonary disease* 6. Stroke* 7. Congestive heart failure*	8. Non-cardiac vascular 9. Chemotherapy 10. Gastrointestinal endoscopy
FY 2014-15 *(also referred to as Wave 1 QBPs)*	11. Hip fracture* 12. Pneumonia 13. Tonsillectomy 14. Neonatal jaundice	
FY 2015-16 *(also referred to as Wave 2 QBPs)*	15. Coronary artery disease 16. Aortic valve disease 17. Cancer Surgery - Prostate 18. Cancer Surgery - Colorectal	19. Knee Arthroscopy 20. Retinal Disease 21. Short-Stay Post-hospital Discharge Homecare: Medical Discharge
FY 2016-17	22. Shoulder Surgery – Osteoarthritis Cuff 23. Paediatric Asthma 24. Paediatric Sickle Cell Anemia 25. Cardiac Devices 26. Cardiac Prevention Rehab in the Community 27. Cancer Surgery: Breast	28. Cancer Surgery: Thyroid 29. Colposcopy 30. Lower Back Pain 31. Mental Health (currently being articulated) 32. Corneal Transplants 33. Maternal and Child Newborn (e.g. c-sections) 34. Hysterectomy 35. Emergency Department Work

* These QBPs are being expanded across the continuum

Best Practice and Best Practice Pricing

What is best practice?

- Evidence-based care in which agreed upon best practice models (pathways) and clinical consensus exist for the optimal patient journey for specified patient or client groups
- A significant amount of research has been completed both in Canada and across the world to ensure clinical practices are grounded on evidence
- Ontario, similar to other jurisdictions, is collaborating with clinical experts, and agencies to ensure best practice guidelines and clinical pathways are developed for all QBPs

What is best practice pricing?

- A best practice price is based on evidence-based care in which best practice models (pathways) and clinical consensus exist for the optimal patient journey for specified patient groups
- Utilization for the best practice model will be used to aggregate the cost of care delivery
- Based on the cost of care the best practice price will be cognisant of the need to provide high quality, cost-effective and efficient health care delivered across the continuum of care

Funding and Costing in HSFR

Funding

- Hospital activity is the basis for funding in HSFR
- Activity will be counted as total weighted cases,
- HSFR is not about cutting hospital budgets
- HSFR does not fix the budgets of individual clinical units with hospitals
- HSFR does not limit the amount hospitals can spend on individual patients

Costing

- Cost is not synonymous with price
- Operation expenditure costs (direct and indirect) are allocated based on MIS Guidelines and OCCI standards
- OCCI data quality measures employed to ensure accuracy and timeliness of reported cost data
- Reconcile volumes and costs by hospital program

Pricing Principles

Include but are not limited to:

- Transparent, easily communicated and administered
- Practical, based on the best available data and evidence
- Consider patient characteristics, including acuity etc.
- Reduce unintended consequences and adverse economic incentives
- Ensure service is not subject to multiple payments
- Linked to agreed upon outcomes and best practices
- Provide incentives for innovation, integrity and efficiency
- Include periodic review and updates

Best Practice Pricing Considerations

Include but are not limited to:

- The goal of HSFR, and QBPs in particular, is to encourage the provision of best practice for patients
- The intent is to price each QBP so that this is rewarded and perverse incentives are not created
- In the short term, there are circumstances such as the care of patients with TIAs, where this creates a conflict
- Work is underway to explore opportunities to embed Emergency Department activities into QBPs (including physician funding) in order to better manage inequities between admitting and not admitting a patient
- The Ministry encourage all hospitals to promote the provision of best care, driven by the most appropriate care; the Ministry will endeavour to as quickly as possible align the funding to match this

QBP Methodology to Date

HSFR Year 1 (2012/13)

Hospitals

Carve-Out:
- Recommended to use OCDM facility-based e expenses rather than OCC

Pricing:
- Average direct cost per case provincial 40th percentile (Cataract, Knee, Hip)
- Direct cost per weighted case (CKD)

*** Note: For HSFR Year 2: GI Endoscopy** - N/A; Using total carve-out amount as funding amount
Chemotherapy Systemic Treatment- N/A; Using total carve-out amount as funding amount

HSFR Year 2 (2013/14)

Hospitals

Carve-Out: Reaffirmed approach from HSFR Year 1
Pricing*: Provincial Average OCCI-Based HBAM-Adjusted DIRECT CPWC (Cataract)
- Provincial Average OCCI-Based HBAM-Adjusted TOTAL CPWC (Knee, Hip, COPD, CHF, Stroke Hemorrhage, Non-cardiac vascular AA)
- Standard practice (CKD)

Volumes: 2011-12 Actuals
Acuity Adjustment (CMI): Introduced using most recent available data

Home Care

Carve-Out: Projected 2013-14 expenses based on five years of data (2007-08 to 2011-12)
Pricing: Same as 2012-13. Pricing based on cases from LHINs that met the community rehab target of 90%
Volumes: Projected 2013-14 volumes based on five years of data (2007-08 to 2011-12)

HSFR Year 3 (2014/15)

Hospitals

Carve-Out :
- **MOH Existing QBPs:** 2013-14 funded dollars for existing QBPs
- **MOH New QBPs:** 2012-13 actual expenses for the new QBP

Pricing:
- **MOH Existing QBPs:** Price has remained the same as 2013-14
- **MOH New QBPs:** Provincial Average OCCI-Based HBAM-Adjusted TOTAL cost per weighted case

Acuity Adjustment (CMI): Reaffirmed approach from Year 2 using most recent available data

Home Care

Carve-Out : 2013-14 funded dollars for existing QBPs and 2012-13 actual expenses for new QBPs
Pricing: Updated from the 40th percentile to median of direct expenses per case from all cases in the province
Volumes: 2013-14 funded volumes for existing QBPs and 2012-13 actual volumes for new QBPs

Acronyms: CPWC – Cost Per Weighted Case **OCDM –** Ontario Costing Distribution Methodology **OCCI –** Ontario Case Costing Initiative

Sample Person-Specific Costing
Primary Unilateral Hip Replacement QBP

Average Direct Cost per Case by Service

Type of Services	All OCCI Hospitals	Teaching	Large Community
AlliedHealth	$461	$469	$449
CardioVascular	$8	$8	$9
Diagnostic Imaging	$139	$162	$102
Echo lab	$0	$0	
Emergency Department	$3	$3	$2
Food_Services	$158	$155	$163
Clinical Laboratories	$197	$196	$198
Nursing Inpatient	$2,336	$2,424	$2,201
Operating Room	$4,111	$4,177	$4,008
Other Ambulatory	$13	$11	$17
Pharmacy	$286	$299	$266
Recovery Room	$328	$340	$309
Direct Cost	**$8,040**	**$8,245**	**$7,724**

Average Direct Cost per Case by Cost Type

Cost Components of Average Direct Cost per Case	All OCCI Hospitals	Teaching	Large Community
Variable Direct Cost_Labor	$3,552	$3,630	$3,432
Variable Direct Cost_General/Patient Specific Supply	$3,539	$3,635	$3,391
Variable Driect Cost_Other	$77	$83	$67
Fixed Direct Cost_Labor	$518	$584	$415
Fixed Direct Cost_Other	$93	$72	$126
Fixed Direct Cost_Equipment	$261	$240	$293
Direct Cost	**$8,039**	**$8,244**	**$7,724**

Sample Person-Specific Costing
Primary Unilateral Knee Replacement QBP

Average Direct Cost per Case by Service

Type of Services	All OCCI Hospitals	Teaching	Large Community
AlliedHealth	$399	$435	$363
CardioVascular	$7	$7	$7
Diagnostic Imaging	$106	$131	$82
Echo lab	$0	$0	$0
Emergency Department	$0	$0	$0
Food_Services	$142	$140	$143
Clinical Laboratories	$152	$145	$159
Nursing Inpatient	$2,019	$2,188	$1,854
Operating Room	$3,445	$3,285	$3,601
Other Ambulatory	$15	$12	$19
Pharmacy	$277	$284	$269
Recovery Room	$331	$334	$328
Direct Cost	**$6,893**	**$6,962**	**$6,825**

Average Direct Cost per Cost Type

Cost Components of Average Direct Cost per Case	All OCCI Hospitals	Teaching	Large Community
Variable Direct Cost_Labor	$3,171	$3,343	$3,003
Variable Direct Cost_General/Patient Specific Supply	$2,862	$2,733	$2,988
Variable Driect Cost_Other	$60	$55	$66
Fixed Direct Cost_Labor	$450	$545	$358
Fixed Direct Cost_Other	$97	$58	$135
Fixed Direct Cost_Equipment	$252	$227	$276
Direct Cost	**$6,892**	**$6,962**	**$6,825**

Pricing for Stroke QBP

QBP	Carve-Out Methodology	Interim Pricing Methodology	Notes
Stroke (acute, separate prices for Hemorrhagic, Ischemic, TIA)	OCDM-based, hospital-specific TOTAL cost per weighted case, HBAM adjusted	OCCI-based, provincial average TOTAL cost per weighted case, HBAM adjusted	• Pricing will be tied to Best Practices, which will include recognition of Target LOS • This approach accounts for severity as captured through weighted cases adjusted by hospital case mix
Inpatient Rehabilitation			Not funded separately from inpatient activity

Stroke QBP:
Comparison of Actual Cost and Average Length of Stay to Best Practice Defined by Advisory Group

Stroke Type	Cost	Actual Mean	Expert Panel Mean	Variance	Variance %
Hemorrhage (N=580)	Total	$ 19,183	$ 10,060	$ 9,123	48%
	Average LOS	14	7	7	50%
Ischemic or Unspecified (N=3793)	Total Cost	$13,574	$ 6,772	$ 6,802	50%
	Average LOS	12	5	7	58%
TIA (N=566)	Total	$ 5,044	$ 3,544	$ 1,500	30%
	Average LOS	4.2	3	1.2	29%

Actual costs and actual LOS relates to patients who fit the Stroke QBP inclusion criteria and their actual LOS and co-morbidities; not only the care for their stroke diagnosis

Stroke QBP Pricing by Service

Stroke Report - A Community Hospital

	Stroke Hemorrhage			Stroke Ischemic			Stroke TIA			Unspecified		
Department	**Total Costs**	**Daily Cost**	**Cost per Case**	**Total Costs**	**Daily Cost**	**Cost per Case**	**Total Costs**	**Daily Cost**	**Cost per Case**	**Total Costs**	**Daily Cost**	**Cost per Case**
Nursing	$ 386,975	$ 379	$ 4,031	$ 1,958,356	$ 404	$ 4,945	$ 72,023	$ 493	$ 2,572	$ 12,876	$ 495	$ 12,876
ICU	$ 374,887	$ 367	$ 3,905	$ 1,048,290	$ 216	$ 2,647	$ 20,245	$ 139	$ 723		$ -	$ -
Emergency Department	$ 71,862	$ 70	$ 749	$ 335,144	$ 69	$ 846	$ 21,546	$ 148	$ 769	$ 357	$ 14	$ 357
Clinical Laboratories	$ 37,509	$ 37	$ 391	$ 172,989	$ 36	$ 437	$ 8,237	$ 56	$ 294	$ 338	$ 13	$ 338
Medical Imaging	$ 63,621	$ 62	$ 663	$ 294,213	$ 61	$ 743	$ 14,531	$ 100	$ 519	$ 163	$ 6	$ 163
Pharmacy	$ 40,192	$ 39	$ 419	$ 279,252	$ 58	$ 705	$ 4,706	$ 32	$ 168	$ 902	$ 35	$ 902
Health Disciplines	$ 59,017	$ 58	$ 615	$ 309,106	$ 64	$ 781	$ 8,244	$ 56	$ 294	$ 1,790	$ 69	$ 1,790
Food	$ 30,643	$ 30	$ 319	$ 160,172	$ 33	$ 404	$ 4,965	$ 34	$ 177	$ 956	$ 37	$ 956
*Other	$ 16,630	$ 16	$ 173	$ 171,670	$ 35	$ 434	$ 10,723	$ 73	$ 383		$ -	$ -
TOTAL	$ 1,081,337	$ 1,058	$ 11,264	$ 4,729,191	$ 975	$ 11,942	$ 165,220	$ 1,132	$ 5,901	$ 17,382	$ 669	$ 17,382
Total Patient Days	1,022			4,849			146			26		
Total Cases	96			396			28			1		
Average Length of Stay	10.65			12.24			5.21			26.00		

QBP Maintenance

Keeping best practices current

(e.g. Clinical Handbook refresh)

Volume planning / management

Knowledge Transfer

(e.g. outreach sessions)

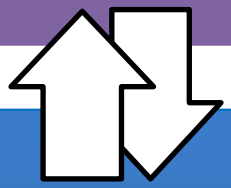
Reporting and analytics

(e.g. indicators)

Volume Planning: Key Roles and Responsibilities

Ministry

- Set appropriate volumes at provincial and LHIN level to address system needs (i.e. meet access and quality targets) within fiscal envelope
- Collaborate with the LHINs to refine volume planning methodology and LHIN-level allocations



Local Health Integration Networks (LHINs)

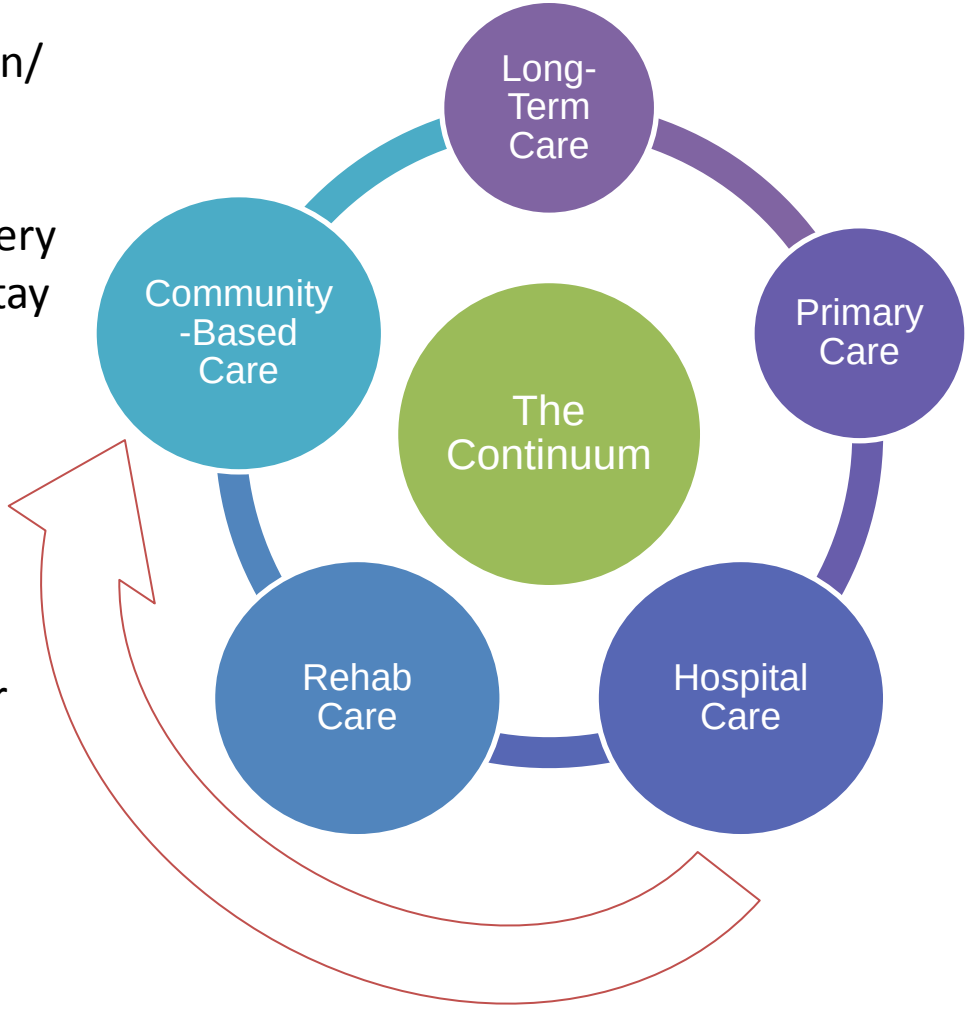
- Collaborate with the Ministry to refine volume setting and allocation methodology leveraging LHIN work already underway with clinicians and HSPs
- Work with small and HSFR hospitals to ensure allocations support patient need & best practices (e.g. maintain a critical annual volume of procedures in HSPs, bend cost curve)
- Determine hospital-level allocations within policy criteria

Hospitals

- Implement agreed upon volumes to meet stated objectives
- Identify efficiency opportunities to do more volumes with same funding or free up resources to meet other service needs
- Work with the LHINs and other hospitals to share best practices and identify future needs
- Continue to improve quality outcomes, reduce variation and adverse events across providers

Integrated Funding Models / Bundled Payments

- Short-stay targeted patient population/ cluster
- Focused on hospital-based care delivery with transition to post-acute, short-stay community-based care
- Where evidence-based practices currently exist
- Where there are sufficient patient volumes in order to increase provider experience and learning
- That represents a significant cost to care delivery (i.e. opportunity to improve value)



Integrated Funding Models / Bundled Payments Cont'd

What are the benefits of bundled payments?

- Can create financial incentives for coordination and integration of providers across different settings
- Can improve quality of care
- Increase access to services
- Holds linked providers accountable to their peers for the total cost of care that they provide during an episode of care

Non-QBP Specific Field Feedback from Site-Visits to Date

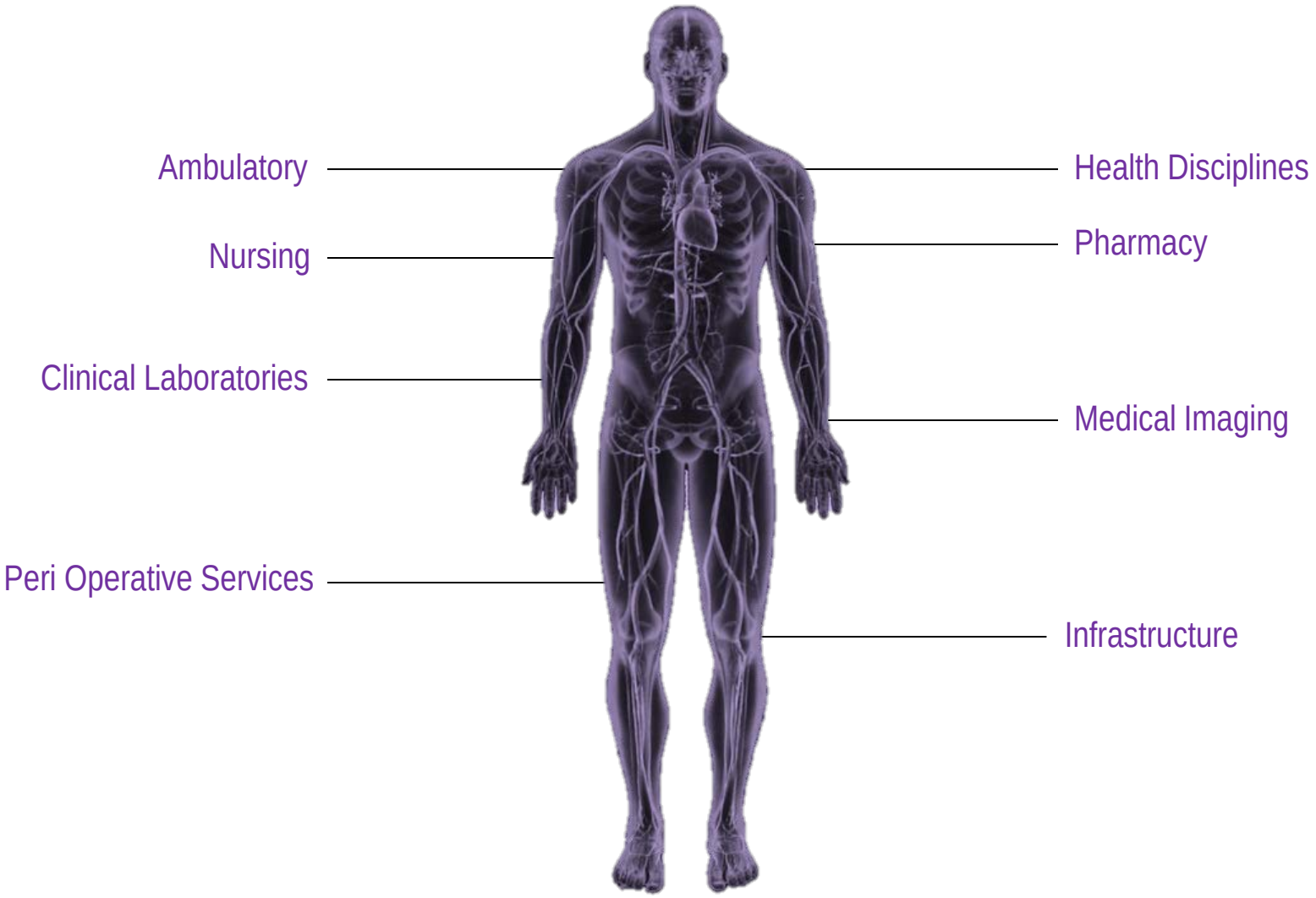
Feedback:

- No pushback on recommendations
- How to increase uptake of best practices (get all hospitals conforming)
- Aware that LOS targets are not achievable first year
- Panels should recommend LOS targets

Recommendations / Considerations:

- Recommend Coder/HIM on future panels
- Funding vs Clinical Inclusion Criteria Differences
- May need funding to assist in creating necessary infrastructure
- Volume management and Capacity Planning
- QBP Pricing
- Sharing of successes
- Data Quality/Timeliness
- Clinical Handbooks need more precision around patient cohorts, best practices and targets

Activity Based Funding is about Patients

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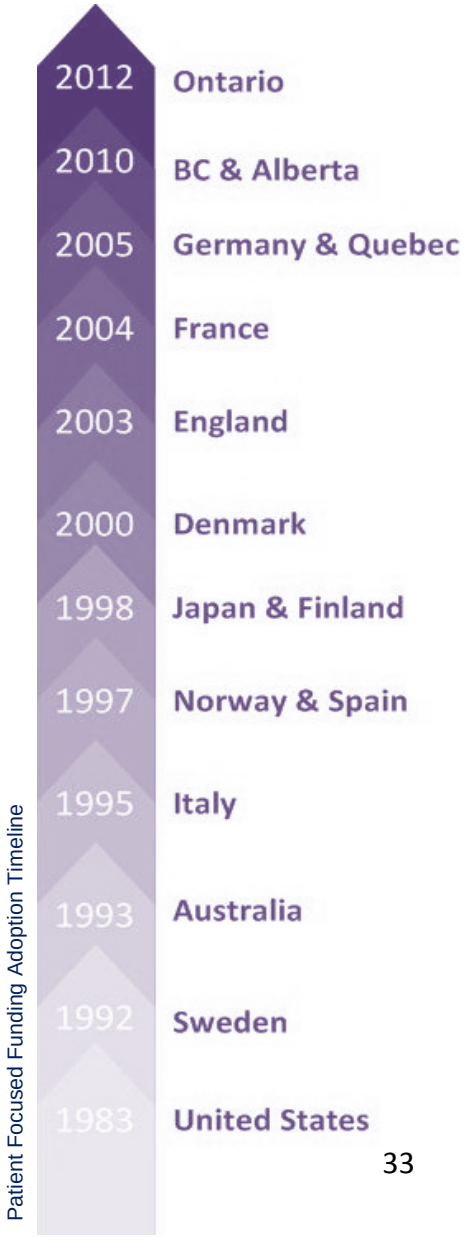
Appendices

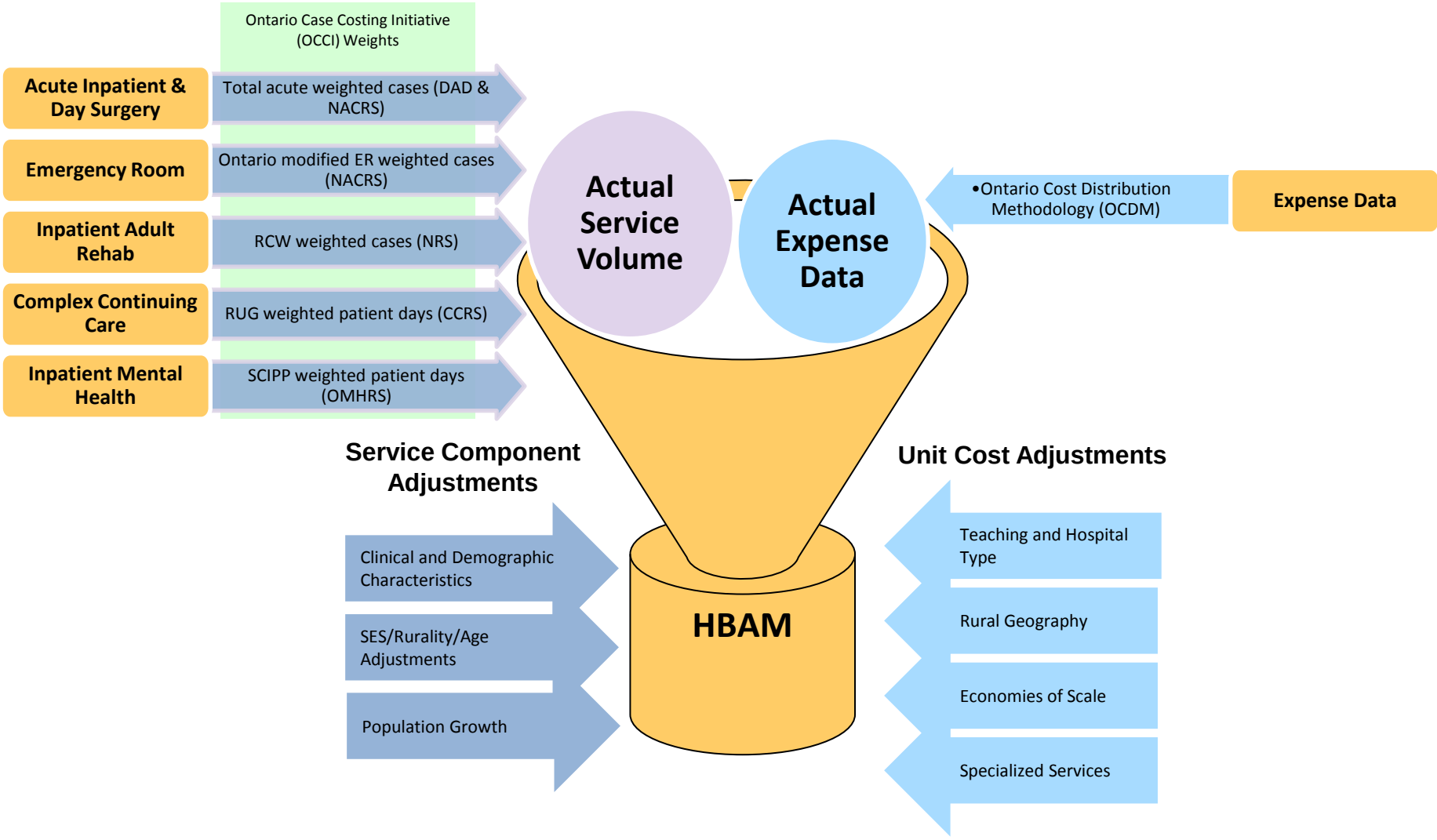
Health System Funding Reform (HSFR)

The Ontario Ministry of Health and Long-Term Care (Ministry) launched HSFR in 2012, drawing from over 25 years of international ABF experience

(Ontario is one of the last leading jurisdictions to move down this path)



Health-Based Allocation Model (HBAM)



QBP	Carve-Out Methodology	Interim Pricing Methodology	Notes
Cataract (day surgery)	OCDM-based*, hospital-specific DIRECT cost per weighted case, HBAM adjusted	OCCI-based**, provincial average DIRECT cost per weighted case, HBAM adjusted	2012-13 carve-out amount reversed. Re-carved using 2013-14 methodology. *OCDM refers to Ontario Cost Distribution Methodology. **OCCI refers to Ontario Case Costing Initiative database.
Hips (acute, rehab)	OCDM-based, hospital-specific TOTAL cost per weighted case, HBAM adjusted	OCCI-based, provincial average TOTAL cost per weighted case, HBAM adjusted	
Knees (acute, rehab)			
Congestive Heart Failure (acute)	OCDM-based, hospital-specific TOTAL cost per weighted case, HBAM adjusted	OCCI-based, provincial average TOTAL cost per weighted case, HBAM adjusted	A new QBP for 2013-14
Chronic Obstructive Pulmonary Disease (acute)			A new QBP for 2013-14
Non-Cardiac Vascular (acute, separate prices for LEOD and AA)			A new QBP for 2013-14
Stroke (acute, separate prices for Hemorrhagic, Ischemic, TIA)			A new QBP for 2013-14
Rehab Hip (community)	MIS expense, CCAC-specific DIRECT cost per case	Use 2012-13 prices, provincial 40th percentile DIRECT cost per case	
Rehab Knee (community)			
CKD	Revenue-based, DIRECT costs	Best practice prices for bundled services	
Chemotherapy-Systemic Treatment	Combine revenue/costs, DIRECT costs	N/A, use carve-out amount as a proxy	
GI Endoscopy	MIS DIRECT costs, endoscopy suite	N/A, use carve-out amount as a proxy	

QBP	Carve Out Methodology	Interim Pricing Methodology	Notes
Hip Fracture (acute) Pneumonia (acute) Tonsillectomy (acute) Neonatal Jaundice (acute) Bilateral Joint Replacement (acute, rehab) Non-Cardiac Vascular AA **** (acute)	OCDM-based, hospital-specific TOTAL cost per weighted case, HBAM adjusted	OCCI-based, discounted*** provincial average TOTAL cost per weighted case, HBAM adjusted	*** The original price (OCCI-based provincial average TOTAL cost per weighted case) for each of the new QBPs is discounted by 2.5% to achieve break-even between total funding and total carve-out for all the new QBPs at the provincial level. ****Due to the rewriting of the clinical handbook for non-cardiac vascular AA, this QBP is treated as a new QBP for 2014-15.
Bilateral Joint Replacement (community)	MIS expense, CCAC-specific DIRECT cost per case	Provincial median DIRECT cost per case	