

Health-Based Allocation Model (HBAM): What You Need To Know



Background

In 2012, the Ontario government implemented the health-based allocation model (HBAM), which was a new funding policy to partially fund hospitals. Today, approximately 38 percent of a hospital's total funding is determined using this methodology. HBAM, which works to reward efficient delivery of care, was developed with the intention of reducing wait times in the areas of Acute Inpatient and Day Surgery, Emergency, Complex Continuing Care, Inpatient Rehabilitation and Inpatient Mental Health. After five years and significant volume increases, HBAM has led to many changes across Ontario hospitals, including the achievement of an overall reduction in costs per weighted case.

What is the Health-Based Allocation Model?

HBAM is made up of two main components:

- 1. Service (volume):** Estimates annual use of health services, taking into account each Ontario Patient's clinical, social and demographic conditions. The main output of the service component is **expected weighted cases**.
- 2. Unit cost (price):** Determines unit costs for each hospital and recognizes health service hospital characteristics that justifiably lead to higher unit costs. The main output of the unit cost component is **expected unit cost**.

Important to Know

The main output of HBAM is **expected expenses**. Expected expenses are determined by multiplying 'expected weighted cases X expected unit cost'.

What are expected weighted cases?

As opposed to just counting each patient that a hospital treats, weighted cases are used in HBAM to account for the fact that some hospitals treat more high-resource patients than others. There are several key steps in predicting a hospital corporation's expected weighted cases:

- Using various different clinical data sources, a Person Profile is created for each Ontario patient. The Person Profile essentially captures all the hospital services received annually by a given patient.
- Person Profile information is aggregated at a community level to determine community service needs for each of Ontario's 105 communities.
- Expected services are divided amongst hospitals in each community based on their market share (i.e. if Hospital A serves 10 per cent of actual cases in a community, then Hospital A will receive 10 percent of expected weighted cases).

Important to Know

HBAM uses data that trails funding by two years. As an example, service changes in fiscal 2014/15 would impact funding for fiscal 2016/17.

What is expected unit cost?

As opposed to just using average costs, expected unit costs are used to adjust for recognized hospital characteristics that justifiably lead to higher unit costs.

In order to determine a hospital's expected unit cost, a provincial average cost or base cost of providing care is developed for each care type (e.g. Acute Inpatient and Day Surgery). Then, if applicable, adjustments for factors such as level of academic activity, geography, and degree of specialization are added to the base unit cost so that each hospital has its own individual expected unit cost.

Important to Know

Specific adjustments for expected unit cost include:

- Teaching
- Isolation (Distance)
- Specialized Services (Level of Care)
- Hospital Type
- Economies of Scale

How does HBAM work?

Once the **expected expenses** (**expected weighted cases X expected unit cost**) are calculated for a hospital, a percent of HBAM expected share is calculated based on a hospital's proportion of expenses relative to the sum of all hospital corporation expenses in the province. See Figure 1 below.

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.

Figure 1: Understanding how HBAM works



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.

Resources

For additional HBAM education materials, visit <https://hsimi.on.ca/hdbportal/node/472> on the Ministry of Health and Long-Term Care, Health Data Branch, Health System Information Management and Investment (HSIMI) website.