

AHS ESTIMATED COST OF A STANDARD HOSPITAL STAY

Measure Definition:

The ratio of a hospital's total acute inpatient care expenses to the number of acute inpatient cases, adjusting for differences in the type and acuity of inpatients the hospital treats.

Why It's Important:

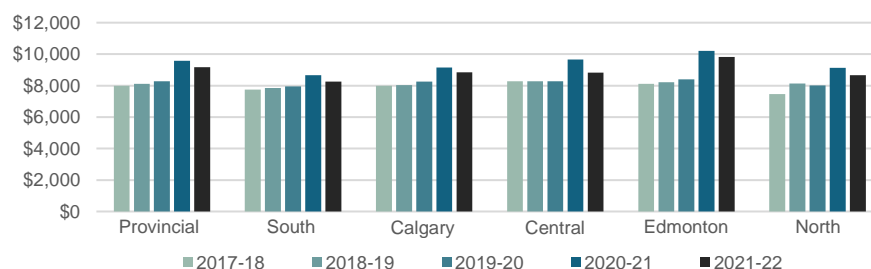
Acute care hospitals are one of the most expensive sectors of the healthcare system. The goal is to provide safe, high-quality care while keeping costs down. The lower the amount the better, as it demonstrates a more cost-efficient acute care system, which maintains quality and safety of care while reducing costs.

Performance Summary:

\$9,172

Provincial
2021-22

Result: **Improved**
(Compared to the same period last year)



AHS Estimated Cost of a Standard Hospital Stay - Trend (in dollars)

Zone	2017-18	2018-19	2019-20	2020-21	2021-22	Result
Provincial	7,997	8,118	8,266	9,571	9,172	Improved
South Zone	7,744	7,841	7,952	8,669	8,246	Improved
Calgary Zone	7,982	8,034	8,245	9,140	8,842	Improved
Central Zone	8,267	8,276	8,267	9,663	8,818	Improved
Edmonton Zone	8,103	8,210	8,391	10,211	9,828	Improved
North Zone	7,453	8,129	8,001	9,134	8,656	Improved

Total Inpatient Costs (in millions of dollars)

Zone	2017-18	2018-19	2019-20	2020-21	2021-22
Provincial	4,288	4,330	4,435	4,717	4,810
South Zone	273	271	272	275	285
Calgary Zone	1,599	1,639	1,671	1,718	1,741
Central Zone	407	406	403	427	436
Edmonton Zone	1,684	1,682	1,755	1,950	2,014
North Zone	325	331	334	347	335

Total Resource Intensity Weighted Cases

Zone	2017-18	2018-19	2019-20	2020-21	2021-22
Provincial	536,230	533,351	536,472	492,788	524,470
South Zone	35,261	34,616	34,156	31,669	34,586
Calgary Zone	200,313	203,967	202,709	187,983	196,917
Central Zone	49,286	49,073	48,729	44,168	49,390
Edmonton Zone	207,778	204,927	209,136	190,999	204,914
North Zone	43,592	40,768	41,742	37,969	38,663

Source: AHS Provincial Discharge Abstract Database (DAD), AHS General Ledger, Covenant General Ledger and Stat General Ledger, as of April 29, 2022

Note:

- This indicator is calculated by dividing the zone's total inpatient cost by its total acute inpatient weighted cases (obtained from the Discharge Abstract Database).
- 2021-22 values may change upon finalized fiscal year finance data.
- The CIHI Case Mix Groups+ (CMG+) methodology is designed to aggregate acute care in-patients with similar clinical and resource-utilization characteristics. It is applied to the acute care inpatient cases to improve estimates of resource indicators, such as Resource Intensity Weights (RIW). Therefore, implementation of CIHI's 2021 CMG resulted in some changes to the number of RIW Cases and the Cost of a Standard Hospital Stay for historical fiscal years.
- Note that the methodology used by AHS is different than that of the Canadian Institute for Health Information resulting in slight differences between the sources.
- Results are reported as "improved" if there is a 3% or greater relative change in a desirable direction when compared to the same time period last year; "deteriorated" if the 3% or greater relative change is in an undesirable direction; otherwise results are reported as "stable".

Goal 4: Improve Financial Health and Value for Money

Objective 8: Support financial sustainability through cost-saving initiatives and reduced expenditures.

Working as the health authority responsible for delivering services across the province, AHS is in a unique position to support the sustainability of healthcare service delivery. AHS remains committed to providing high-quality services, while maintaining strong fiscal stewardship of public resources.

Actions and Achievements

Manage within the operating budget by implementing savings initiatives

- AHS continues to progress work on more than 66 initiatives from the *AHS Performance Review*, as approved by the Government of Alberta. AHS provides regular progress updates as part of its accountability to Alberta Health. As of March 31, 2022, AHS has achieved \$144M in total cumulative savings.
- AHS is actively reviewing and terminating unneeded contracts and leases that have resulted from the implementation of remote and hybrid staff work arrangements that began during the COVID-19 pandemic. This work aligns with recommendations from the *AHS Performance Review*.

Manage expenses by limiting discretionary spending and managing vacancies

- In alignment with recommendations from the *AHS Performance Review*, all vacant positions

in the organization are being reviewed and, where appropriate, removed from the system.

- AHS monitors discretionary expenses regularly across the organization and spending has been reduced in this area. The two areas with the most significant reductions are travel and education expenses. Permanent spending reductions were implemented, in alignment with recommendations from the *AHS Performance Review*.

Pursue revenue-generating initiatives

- In alignment with recommendations from the *AHS Performance Review*, opportunities to sell corporate advertising on both physical and digital properties are being explored. To date, zoning and bylaw assessments have been conducted to determine pilot sites for parkade advertising.
- In 2021-22, AHS implemented new inpatient per diem fees for out-of-province and out-of-country patients with inpatient stays at acute, sub-acute, and auxiliary hospital sites. This change was part of the annual rate-review process that aims to align the daily fee with the current cost of caring for a patient.
- In 2021-22, AHS shifted to Alberta-specific outpatient fee rates for services provided to out-of-province and out-of-country patients in approved hospitals or community ambulatory care centres. Prior to this change, standard national rates were used by all Canadian jurisdictions which resulted in significant gaps between outpatient fees and the cost incurred to provide outpatient services.



Pursue opportunities for asset optimization, automation, contracting and outsourcing

- In alignment with recommendations from the *AHS Performance Review*, AHS continues to explore opportunities to expand robotic process automation (RPA) which uses software to automate manual processes such as data entry. Benefits include reduced error rates and cost savings. RPAs have been implemented for 16 processes, totaling more than 900,000 items processed to date. These efficiencies have freed more than 26,000 hours of capacity.
- AHS completed the provincial transition to a private provider for all standard and operating room linen services. Contracting out linen services promotes consistency and quality while presenting ongoing capital and operating savings over the life of the contract. This work aligns with recommendations from the *AHS Performance Review*.
- Approximately 130 laboratories across Alberta perform more than 80 million tests annually. In alignment with recommendations from the *AHS Performance Review*, AHS and Alberta Precision Laboratories are pursuing opportunities to contract out community laboratory services to a third-party provider to optimize services across the province. This model allows for consolidation of testing, where appropriate, to reduce redundancy and leverage benefits realized through economies of scale. In Q1 2021, AHS announced DynaLIFE Medical Labs as the preferred proponent. Negotiations continue with the effective date and transition of services targeted for December 2022. DynaLIFE's current agreement will be further extended from June 30, 2022 until December 4, 2022.
- In order to optimize the organization's Protective Services model, AHS is increasing the ratio of contracted security personnel at several AHS locations which will mitigate risks related

to workforce supply and availability. In 2021-22 progress was made by filling 34 existing vacancies with contracted providers. The increased demand for security services during the COVID-19 pandemic has required AHS to expand use of contracted providers to meet evolving organizational requirements that places patient, visitor and staff safety at the forefront. This work aligns with recommendations from the *AHS Performance Review*.

Streamline procurement and supply chain management

- In alignment with recommendations from the *AHS Performance Review*, AHS is exploring opportunities to contract a provincial Managed Equipment Service that aims to improve cost-effectiveness and access to current, state-of-the-art technology. In 2021-22, a request for information received 35 submissions from 14 unique vendors across five categories (diagnostic imaging, endoscopy, central monitoring, operating room infrastructure and other). This information will be used to develop a request for proposal.

Improve clinical utilization and efficiency of clinical support services, and expand clinical appropriateness initiatives

- AHS continued to leverage operational best practice (OBP) methodology to optimize staffing based on patient demand. Across all acute care sites, after adjusting for COVID-19 disruptions, 48 per cent of units are achieving their OBP staffing targets, exceeding the target of 45 per cent. This work aligns with recommendations from the *AHS Performance Review*.
- Chimeric antigen receptor (CAR) T-cell therapy is an innovative treatment that uses a patient's own immune system to battle cancer cells. The Alberta Cellular Therapy program began accepting patients in 2020-21 for the treatment of lymphoma and leukemia. Since opening in March 2021, 23 patients have received treatment through the program; 10 of these patients received T-cells manufactured locally in Alberta.

- Venting Wisely is an evidence-informed care pathway that leverages team-based care and expertise to improve intensive care unit capacity, care outcomes and perceptions of care quality among patients with respiratory failure requiring mechanical ventilation. Implementation has occurred at 15 of the province's 17 adult ICUs, with all implemented sites exceeding the target of 70 per cent adherence to the pathway.
- Blood Conservation is an evidence-based approach that reduces ineffective, potentially harmful and costly practices regarding the use of blood products and blood testing. Since the rollout, AHS has achieved a 33 per cent relative reduction in low-value albumin use, and 649 patients have avoided unnecessary blood products administration which prevented more than 1,400kg of biomedical waste.

Reduce inefficiencies within the healthcare delivery system

- AHS is working closely with Alberta Health to review the number of policies and forms used in the organization. As of March 31, 2022, AHS had achieved a reduction of more than 1,850 forms and more than 1,950 policy documents, representing a 24-per-cent overall reduction. This achievement exceeded the expected reduction target of 20 per cent.

Continue quality improvement work to reduce hospital length of stay

- Care pathways for surgery are being implemented across adult acute care sites. The National Surgical Quality Improvement Program (NSQIP) has been implemented at all high-acuity adult sites as well as two pediatric sites. In Q3, the median surgical site infection (SSI) rate at NSQIP-enabled sites improved by eight per cent compared to the same period last year. SSIs contribute to poorer health outcomes and longer lengths of stay.
- A *Pediatric Glycemic Management* policy suite was released to support the early recognition and treatment of both hypoglycemia and hyperglycemia in pediatric populations.

Performance Results Summary

Annual Rate of Change in Operational Expenditures

2017-18	2018-19	2019-20	2020-21	2021-22	Target 2021-22
2.5%	3.7%	1.8%	-1.2%	2.2%	3.9%

Source: AHS Annual Audited Consolidated Financial Statements, External Financial Reporting, Finance, AHS general ledger (e-Manager), as of June 1, 2022.

- This measure reflects AHS operational expenditures only.

- This measure monitors the year-over-year change in AHS' operational expenditures (excluding incremental COVID-19 expenses) which are expenses incurred during regular, day-to-day operation such as salaries, benefits and medical supplies. The **lower the percentage the better**, as it demonstrates lower expenditure growth over time.
- The 2021-22 annual rate of change in operational expenditures (2.2%) **achieved target**.

AHS Estimated Cost of a Standard Hospital Stay

2017-18	2018-19	2019-20	2020-21	2021-22
\$7,997	\$8,118	\$8,266	\$9,571	\$9,172

Source: AHS Provincial Discharge Abstract Database (DAD), AHS General Ledger, Covenant General Ledger and Stat General Ledger, as of April 29, 2022.

- This indicator is calculated by dividing the zone's total inpatient cost by its total acute inpatient weighted cases (obtained from the Discharge Abstract Database).

- Note that the methodology used by AHS is different than that of the Canadian Institute for Health Information resulting in slight differences between the sources.

- This measure monitors the cost-efficiency within hospitals by comparing a hospital's total acute inpatient care expenses to the number of acute inpatient cases, adjusting for differences in the type and acuity of inpatients treated. Acute care hospitals are one of the most expensive sectors of the healthcare system. The goal is to provide safe, high-quality care

while keeping costs down. The **lower the value the better**, as it indicates that the cost of treating the average acute inpatient is relatively low.

- As of Q4YTD, the cost of a standard hospital stay (\$9,172) **improved** by four per cent compared to the same period last year (\$9,571).
- The effects of COVID-19 were first seen in 2020-21 when acute inpatient expenses increased with additional COVID-19-related costs (e.g., personal protective equipment, overtime for isolating staff, etc.) with simultaneous declines in inpatient cases (e.g., cancelled elective surgeries, public health advice to only go to hospitals when necessary, etc.), leading to a large increase in the cost of a standard hospital stay. This year, inpatient cases rose, though not to pre-pandemic levels, and inpatient costs grew more slowly, which has started to reverse the effects seen last fiscal year.
- Alberta ranked 10th among the 10 provinces for the lowest cost of a standard hospital stay (AB = \$9,149; Canada = \$7,619; Best Performing Province = \$6,640) (CIHI 2020-21).

Acute Length of Stay Compared to Expected Length of Stay (ALOS:ELOS)

2017-18	2018-19	2019-20	2020-21	2021-22
1.03	1.03	1.03	0.99	0.99

Source: AHS Provincial Discharge Abstract Database (DAD), as of April 29, 2022.

- This measure monitors the number of acute days that a patient stays in an inpatient hospital compared to the length of stay that is expected based on factors such as patient age, diagnoses, and interventions. To improve service delivery, it is important to manage the length of time patients remain in hospital and improve discharge and transitions from acute care to ensure the most efficient utilization of hospital beds. A **ratio of 1.0 represents a patient stay equal to the expected length of stay**. A ratio less than one indicates the acute stay was shorter than expected, and vice versa.

- As of Q4YTD, the ALOS:ELOS ratio (0.99) remained **stable** compared to the same period last year (0.99).
- Using a similar definition, Alberta ranked 3rd among nine provinces for the lowest ALOS:ELOS ratio (AB = 0.99; Canada = 0.96; Best Performing Province = 0.91) (CIHI, 2020-21)*.

30-day Overall Unplanned Readmissions

2017-18	2018-19	2019-20	2020-21	Q3YTD 2020-21	Q3YTD 2021-22
9.4%	9.5%	9.4%	9.2%	9.3%	9.2%

Source: CIHI Your Health System: Insight, as of April 25, 2022.

- Results were adjusted by using the Canadian average rate of the Overall Readmission in 2018-19.

- This measure monitors the percentage of patients who are unexpectedly readmitted to hospital within 30 days of discharge following medical, surgical, pediatric or obstetric care. Readmission rates can be influenced by the quality of care provided, the effectiveness of the care transitions and coordination, and the availability and use of community programs. The **lower the percentage the better**, as it demonstrates appropriate discharge planning and continuity of services.
- As of Q3YTD, the percentage of unplanned readmissions (9.2%) remained **stable** compared to the same period last year (9.3%). This measure is reported one quarter later due to requirements to follow up with patients after end of reporting quarter.
- Using a similar definition, Alberta ranked tied for 3rd among nine provinces for the lowest percent of all patients readmitted to hospital (AB = 9.2%; Canada = 9.4%; Best Performing Province = 8.5%) (CIHI, 2020-21).

* Parts of this material are based on data and information provided by the Canadian Institute for Health Information (CIHI). However, the analyses, conclusions, opinions and statements expressed herein are those of the author and not necessarily those of CIHI.