

Empowering Healthcare Decision-Making: Leveraging Standardized Template for Enhanced Reliability and Efficiency in Budget Impact Analysis by Health Technology Assessment Agency

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BACKGROUND

Budget Impact Analysis (BIA) is a pivotal tool for healthcare decision-makers, as it supports the assessment of the financial implications associated with the reimbursement of new healthcare interventions.

However, the absence of standardized BIA templates may lead to methodological variability and inconsistent outcomes, limiting stakeholders' ability to confidently assess the financial impact of new interventions and hindering effective reimbursement decision-making.

OBJECTIVES

This study explores the benefits of using a standardized budget impact model template for economic evaluations from the perspective of a Health Technology Assessment agency.

METHODS

► In early 2023, the Institut national d'excellence en santé et services sociaux (INESSS), in Québec, Canada, developed a standardized BIA template for internal use, aiming to improve consistency and usefulness.

► This flexible tool is based on the most recent guidelines for economic evaluations and reflects current best practices [1]. Notably, the template includes two advanced key features:

1. the continuous integration of newly treated patients over time (on a monthly basis);
2. the use of time-to-event data to inform treatment sequences through health state occupancy.

► All budget impact models submitted to INESSS in 2024 for which the Institut reanalyzed the BIA, were reviewed to assess the most commonly adopted methodological approaches by the manufacturers regarding these 2 key features.

RESULTS

- In 2024, out of the 118 drug dossiers submitted for reimbursement purposes, INESSS conducted 39 budget impact analyses. The approaches adopted by manufacturers were heterogeneous, particularly regarding the continuous integration of patients throughout the analysis (31% of the BIAs incorporated this feature, Figure 1.a) and the modeling of dynamic treatment discontinuation over time (56% of the BIAs included this approach, Figure 1.b). These elements highlight the need for a standardized model to ensure a consistent and coherent evaluation methodology across recommendations.

Figures 1 and 2. Retrospective analysis from submitted BIAs to INESSS in 2024 (left) and overview of the BIA model template from INESSS (right)

Figure 1.a

Methodological approach adopted by manufacturers to integrate patients into BIA in 2024

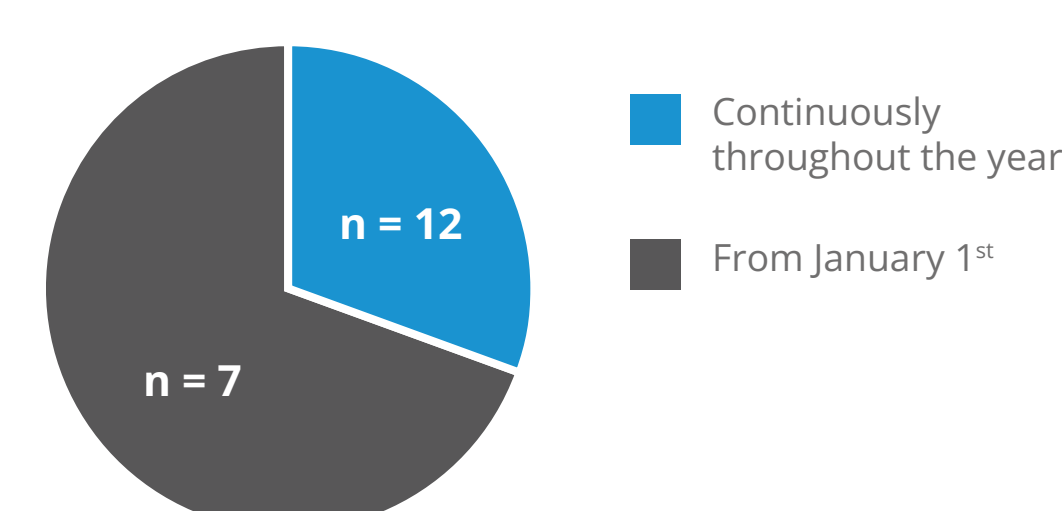


Figure 1.b

Methodological approach adopted by manufacturers for treatment discontinuation in BIA in 2024

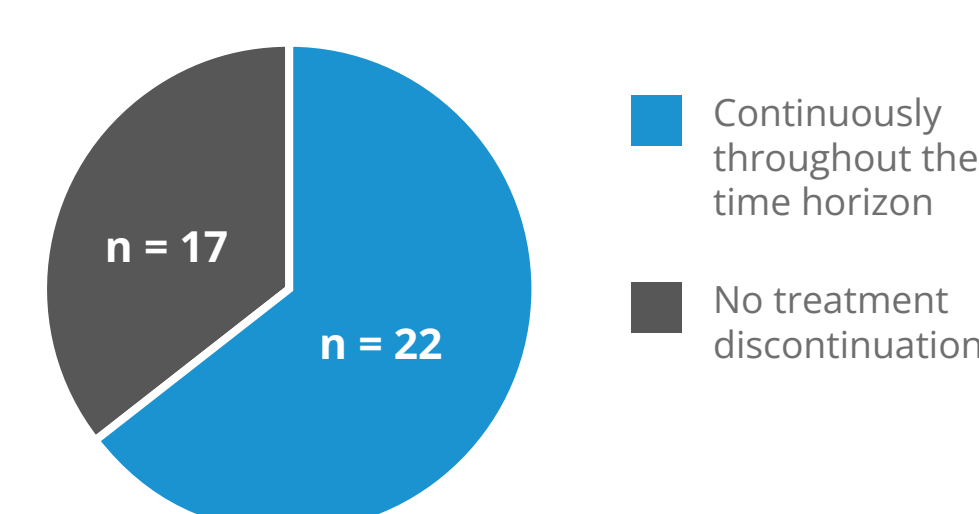


Figure 1.c

Methods for BIA assessments by INESSS in 2024

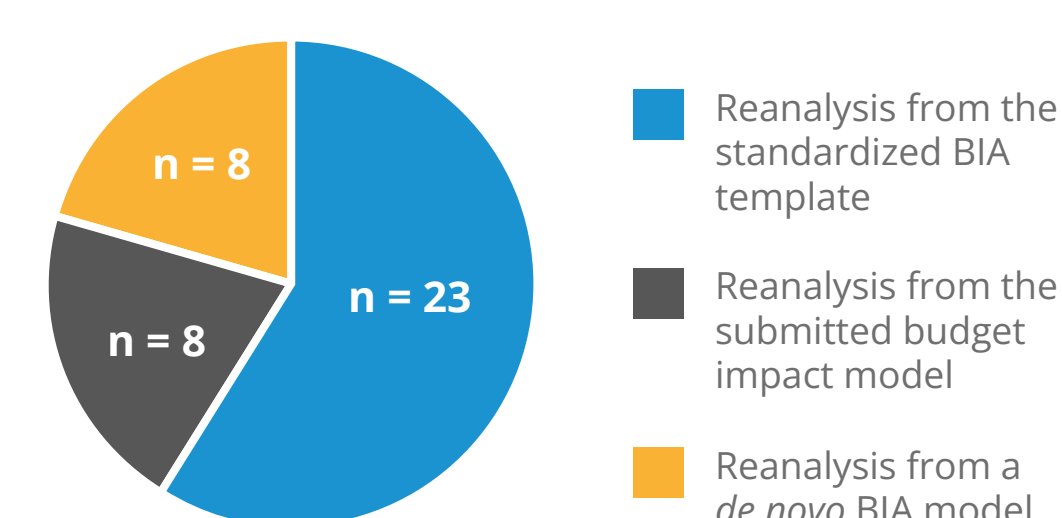
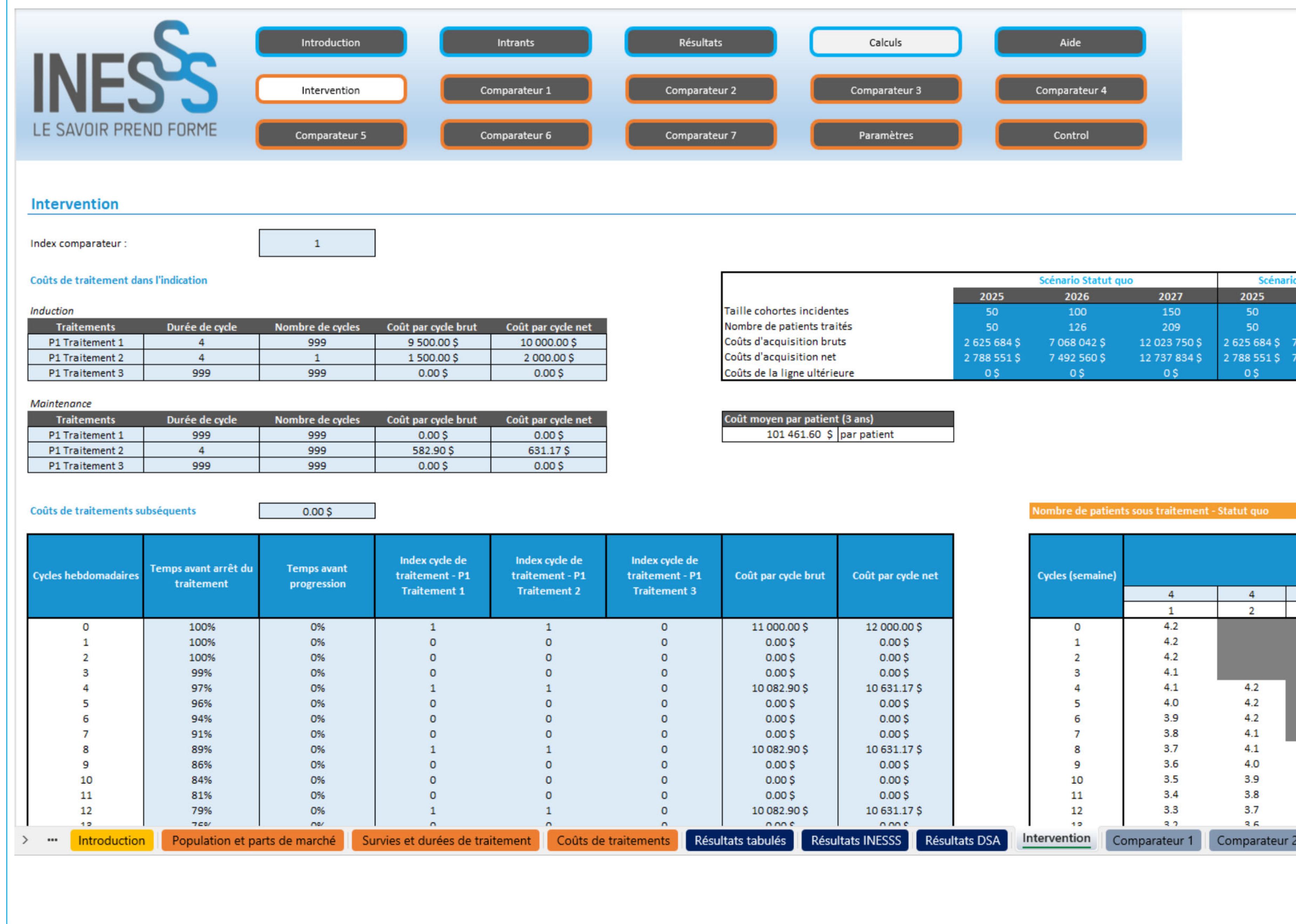


Figure 2



- Figure 2 shows an overview of the standardized model developed by INESSS. Since the BIA's template introduction in 2023, only 21% of the budget impact reanalyses have been conducted using the manufacturer's model (Figure 1.c). The standardized model has been adopted in 59% of cases, while INESSS has occasionally preferred to develop a model de novo for specific cases (21% of cases).
- The two advanced key features specific to this template enable a dynamic assessment that captures real-time patient influx and discontinuation over the time horizon, providing a more detailed and realistic representation of anticipated market integration and associated costs. Notably, these two features contribute to producing more accurate estimates of the projected budgetary impact for each year of analysis, which is critical for the budget planning of the Régie de l'assurance maladie du Québec (RAMQ) and healthcare institutions in Quebec. Finally, the use of the template has resulted in significant time savings for the reanalysis of the budget impacts, both in terms of model preparation and validation.

CONCLUSION

The standardized approach reduces methodological variability ensuring more robust and comparable analyses across diverse healthcare interventions. This approach not only increases the reliability of decision-making but also supports evidence-based reimbursement strategies. Additional work is planned to further develop this tool, specifically to facilitate its use by the authorities responsible for negotiating drug prices. Furthermore, INESSS will soon release its economic guidelines aiming to guide the methodological approach for economic evaluations.

REFERENCES

INESSS Submission Guide for Drugs, Blood System Products and Medical Devices Related to the Administration of Drugs. INESSS, 2024. Accessible at: https://www.inesss.qc.ca/fileadmin/doc/INESSS/Inscription_medicaments/Fiches_inscription/en/Submission_guidance_document.pdf

