

## PP07 Vaccine Decision-making In Canada: Processes And Guidelines For Using Economic Evidence

Beate Sander ([Beate.Sander@uhnresearch.ca](mailto:Beate.Sander@uhnresearch.ca)),  
Murray Krahn, Stirling Bryan, Werner Brouwer, Mark Jit,  
Karen Lee, Monika Naus, Sachiko Ozawa, Lisa Prosser,  
Nina Lathia, Man Wah Yeung, Austin Nam, Ashleigh Tuite,  
Althea House and Matthew Tunis

**Introduction:** Canada's National Advisory Committee on Immunization (NACI) makes recommendations on the use of human vaccines. Provinces and territories subsequently use the advice to make decisions on public funding and program implementation. Traditionally, NACI reviewed vaccine characteristics and burden of illness.

With its recent expanded mandate, NACI now considers cost-effectiveness via economic evaluations, among other decision determinants. As such, new processes and guidelines were needed to formalize the incorporation of economic evidence into federal vaccine decision-making.

**Methods:** Two task groups were convened respectively to develop NACI's "Economic Process" and "Guidelines for the Economic Evaluation of Vaccination Programs in Canada". The groups conducted environmental scans to inform their work, as well as engaged with government partners, decision-makers, academics, national immunization technical advisory groups from other countries, health technology assessment agencies, industry, patient groups, among others.

**Results:** The Economic Process outlines when and how NACI incorporates economic evidence for vaccine recommendation. For instance, it describes how policy questions are prioritized given institutional capacity constraints for generating economic evidence. It also describes how policy questions are assessed to determine the appropriate type of economic evidence required (i.e., systematic review, economic evaluation, multi-model comparison of external models).

The Economic Guidelines provide recommendations in 15 chapters on how to conduct economic evaluations (i.e., from defining the decision problem to reporting). Unlike other health technologies, vaccines have the potential to affect both vaccinated and unvaccinated individuals. Hence, the Guidelines consider population-level impacts such as externalities (e.g., herd immunity, age-shifting of disease) and spillover effects. They also discuss equity considerations and non-health impacts of vaccines such as to productivity, consumption and education.

**Conclusions:** The Economic Process and Economic Guidelines promote the generation and use of credible and standardized economic

evidence. They advocate for transparency, allowing evidence to be used across jurisdictions beyond Canada. Next steps include documentation of user feedback, incorporation of Indigenous considerations, and formal evaluations.

## PP09 Capturing Broader Effects Of Influenza Vaccination Program In Economic Evaluation: Systematic Literature Review

Seulki Choi ([seulki.choi@griffithuni.edu.au](mailto:seulki.choi@griffithuni.edu.au)),  
Joshua Byrnes and Hansoo Kim

**Introduction:** Decision-making for vaccination programs requires additional consideration on broader effects. The cost-effectiveness guidelines published by the Professional Society for Health Economics and Outcomes Research (ISPOR) working group recommends considering broader effects such as herd protection. Whilst difficulty to produce robust data for such factors might hinder quicker decisions, they are important features of vaccination programs and some of them were the narratives that dominated over the COVID-19 pandemic. In this systematic literature review, the perspectives taken and inclusion of broader effects were investigated for recent influenza vaccine economic evaluations.

**Methods:** The search strategy based on the terms influenza vaccination and cost-effectiveness was carried out on Embase and PubMed. Considering the publication date of the ISPOR guidelines, articles since 2019 were searched. The review focus was the perspectives taken and inclusion of broader benefits in the analysis. A link between perspective and inclusion of broader effects was tested with a Chi-square test.

**Results:** The total number of full cost-effectiveness articles screened was 48. Of those, the number of articles performed from both the perspectives was 18 (37.5%), and 13 articles (27.1%) considered the perspective of payer only. For those that had both perspectives considered, the ICER reported from the societal perspective was consistently lower than that from the payer perspective. Thirty-one articles (65%) included any of the broader effects. However, broader effects considered were limited to indirect protection (17 articles, 35.4%) and productivity loss (22 articles, 45.8%). The relation between perspective and inclusion of broader effects was significant ( $p=0.04$ ).

**Conclusions:** This review highlights that studies performed using both payer and societal perspectives as recommended by the ISPOR research guidelines are not many, while more favorable outcomes were presented when the societal perspective was adapted. Broader effects included are productivity loss and indirect protection. For other broader effects specified in the research guidelines, there are not many attempts to include those in economic evaluations.