

# COVID-19 Economic Costs and the Implicit Value of a Life-Year in Canada

## Description

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## Abstract

Governments around the world use health technology assessment (HTA) to inform price negotiations between publicly funded drug plans and pharmaceutical manufacturers. HTA relies on pharmacoeconomic concepts like incremental cost effectiveness ratios (ICERs) which are derived from statistics like disability-adjusted life-years (DALYs) or quality-adjusted life-years (QALYs). The Canadian Agency for Drugs and Technology in Health (CADTH) conducts HTA of new medicines on behalf of federal, provincial and territorial publicly funded drug plans using such pharmacoeconomic methods. The federal government's drug price regulator known as the Patented Medicine Prices Review Board (PMPRB) also intends to introduce pharmacoeconomic factors into its price control guidelines later this year. The cost effectiveness thresholds used by CADTH and intended for use by the PMPRB are calculated from life-year valuations that are lower than the values assigned by other countries. Medications priced above the threshold are not eligible for reimbursement. CADTH and PMPRB have justified the cost effectiveness thresholds on the basis of their respective mandates to consider the affordability constraints of public payers. Yet, as of June 12, 2020, the total cost of COVID-19 pandemic related spending by the federal government and associated GDP losses resulting from public health measures imposed by Canadian governments could exceed \$391 billion. This raises an important question about how many potential deaths were avoided by imposing mass quarantine on Canadians. The cost per life saved has implications for the economic value of a life-year when used as a tool to set Canadian public policies like the PMPRB's new price control guidelines. This brief analysis calculates the economic value of a life-year implied by the costs of the federal government's policy response to COVID-19 and compares this to the cost effectiveness thresholds used by CADTH and PMPRB.

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