

## National Advisory Committee on Immunization (NACI): Guidelines for the Economic Evaluation of Vaccination Programs in Canada 1<sup>st</sup> Edition

Table 1: Impact inventory table for economic evaluations of vaccination strategies

Area of Impact	Definitions/Examples	Included in Reference Case?		Comments
		Publicly funded health system perspective	Societal perspective	
<i>Health</i>				
Health outcomes	Individual health outcomes for persons intended for vaccination			
	Mortality	<input type="checkbox"/>	<input type="checkbox"/>	
	Health-related quality of life	<input type="checkbox"/>	<input type="checkbox"/>	
	Safety (i.e., adverse events)	<input type="checkbox"/>	<input type="checkbox"/>	
	Health impacts not captured by QALYs	<input type="checkbox"/>	<input type="checkbox"/>	
	Individual health outcomes for informal caregivers			
	Health-related quality of life	<input type="checkbox"/>	<input type="checkbox"/>	
	Population health outcomes			
	Incidence of infection and disease in vaccinated and unvaccinated individuals	<input type="checkbox"/>	<input type="checkbox"/>	
	Changes in age distribution of individuals who develop infection and disease	<input type="checkbox"/>	<input type="checkbox"/>	
	Emergence of new diseases related to variations of the pathogen (i.e., serotypes, serogroups, strains) or unrelated pathogens that may replace the one(s) targeted by the vaccine	<input type="checkbox"/>	<input type="checkbox"/>	
	Disease eradication	<input type="checkbox"/>	<input type="checkbox"/>	

Area of Impact	Definitions/Examples	Included in Reference Case?		Comments
		Publicly funded health system perspective	Societal perspective	
Publicly funded health system costs	Healthcare costs			
	Publicly funded healthcare services (e.g., physician visits, diagnostic tests, drug treatment where applicable, hospitalization, formal caregiving, <sup>a</sup> rehabilitation in a facility or at home, <sup>a</sup> home care, <sup>a</sup> long-term care in nursing homes <sup>a</sup> )	<input type="checkbox"/>	<input type="checkbox"/>	
	Future related and unrelated healthcare costs	<input type="checkbox"/>	<input type="checkbox"/>	
	Public Health costs			
	Program-related costs (e.g., implementation, delivery and recurrent costs including Public Health campaigns and health promotion activities; transaction costs related to introduction of new vaccines or switching between vaccines; costs related to screening, diagnosis, and treatment of disease; epidemiological surveillance, contact tracing, investigation and management of outbreaks)	<input type="checkbox"/>	<input type="checkbox"/>	
	Intervention-related costs (e.g., cost of vaccine doses, distribution such as transportation and cold storage, administration including personnel, wastage and ancillary supplies)	<input type="checkbox"/>	<input type="checkbox"/>	
Healthcare costs NOT funded by the health system	Prescription medications (in some cases)	N/A	<input type="checkbox"/>	
	Formal caregiver services, <sup>a</sup> rehabilitation in a facility or at home, <sup>a</sup> home care, <sup>a</sup> long-term care in nursing homes <sup>a</sup> (in some cases)	N/A	<input type="checkbox"/>	
	Miscellaneous out-of-pocket costs (e.g., non-prescription medications)	N/A	<input type="checkbox"/>	

Area of Impact	Definitions/Examples	Included in Reference Case?		Comments
		Publicly funded health system perspective	Societal perspective	
	Ancillary costs (e.g., private insurance copayments, dental care, vision care, assistive devices, physiotherapy, etc.)	N/A	<input type="checkbox"/>	
<i>Non-Health</i>				
Direct out-of-pocket costs	Transportation costs	N/A	<input type="checkbox"/>	
	Accommodation costs	N/A	<input type="checkbox"/>	
Losses in productivity	<i>Paid work</i>			
	Time off work resulting from vaccine administration, treatment, illness, disability, or death	N/A	<input type="checkbox"/>	
	Presenteeism	N/A	<input type="checkbox"/>	
	Lifetime productivity consequences of childhood disease	N/A	<input type="checkbox"/>	
	<i>Unpaid work</i>			
	Time off work in informal labour market (e.g., volunteering, helping, mentoring) resulting from vaccine administration, treatment, illness, disability, or death	N/A	<input type="checkbox"/>	
	Uncompensated household production (e.g., cooking, cleaning, shopping, raising children, other tasks related to household management)	N/A	<input type="checkbox"/>	
	<i>Informal caregiver productivity</i>			
Time off work resulting from caring for sick individuals, accompanying individuals to vaccine appointments	N/A	<input type="checkbox"/>		
Caregiver presenteeism	N/A	<input type="checkbox"/>		

Area of Impact	Definitions/Examples	Included in Reference Case?		Comments
		Publicly funded health system perspective	Societal perspective	
	Macroeconomic consequences			
	Labour supply shocks, widespread business closures	N/A	<input type="checkbox"/>	
Consumption	Future individual non-medical consumption	N/A	<input type="checkbox"/>	
	Changes in household consumption	N/A	<input type="checkbox"/>	
	Health impacts of consumption (e.g., associated with job loss)	N/A	<input type="checkbox"/>	
Education	Level of educational achievement as a result of physical health, mental health, and cognition	N/A	<input type="checkbox"/>	
	Costs of special education needs as a result of illness/disability	N/A	<input type="checkbox"/>	
	Disruptions to learning outcomes (e.g., as a result of school-based vaccine delivery, pediatric disease and disability, or death/disability of a close family member)	N/A	<input type="checkbox"/>	
Social services and community services	Social services and community services (e.g., disability support, programs to improve access to vaccination programs for adults)	N/A	<input type="checkbox"/>	
	Child and Youth Services (e.g., awareness programs, family respite, programs to improve access to vaccination programs for children and youth)	N/A	<input type="checkbox"/>	
Environment	Environmental impact of vaccination programs and comparators from manufacturing, distribution, and implementation (e.g., antibiotic use)	N/A	<input type="checkbox"/>	
	Food and non-food waste	N/A	<input type="checkbox"/>	

Area of Impact	Definitions/Examples	Included in Reference Case?		Comments
		Publicly funded health system perspective	Societal perspective	
	Carbon consumption	N/A	<input type="checkbox"/>	
Other Areas	Consider areas such as housing when applicable	N/A	<input type="checkbox"/>	

<sup>a</sup> Some of these costs may or may not be incurred by the publicly funded health system, depending on the precise nature of these costs and the relevant jurisdiction

Abbreviation: QALY, quality-adjusted life-year