Our mission

To support the translation of NMIN-funded technologies from bench to bedside by enabling the use of eHTA to inform R&D and commercialization-related decisions
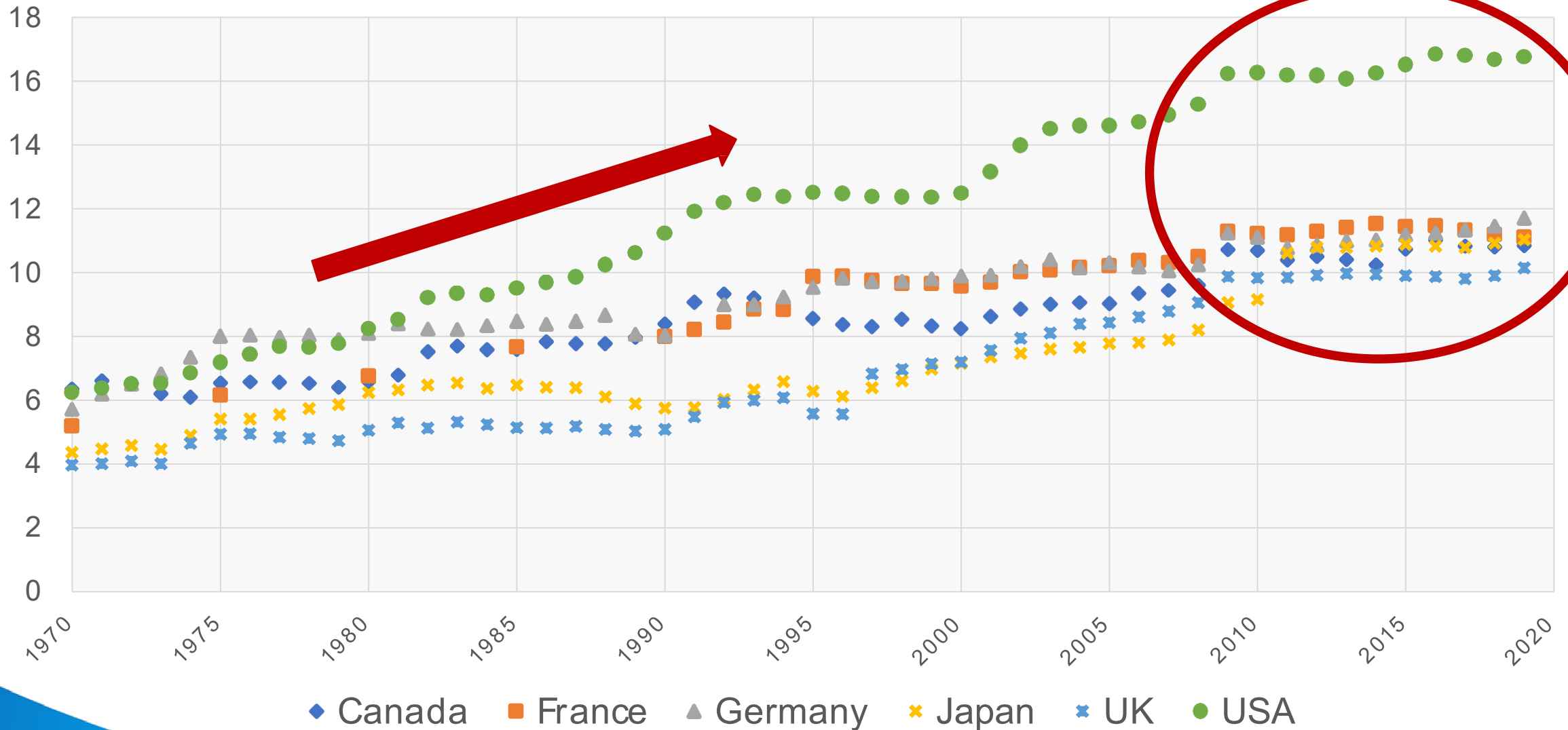
What is eHTA?

➢ Use of <u>health economics</u> methods (e.g., cost-effectiveness analysis) early in the medical product life cycle

➢ Estimates <u>potential value</u> of proposed product for key healthcare stakeholders

Cost-effectiveness and budget impact are key drivers of reimbursement decisions

HEALTHCARE SPENDING AS % OF GDP, 1970-2019

$2.8M gets you…

opportunity cost

- Zolgensma for 1 patient
- Statins for 14,000 patients
- Hospital stay for 456 patients

Does Zolgensma deliver good value for money?

At $2.1 million, newly approved Novartis gene therapy will be world's most expensive drug

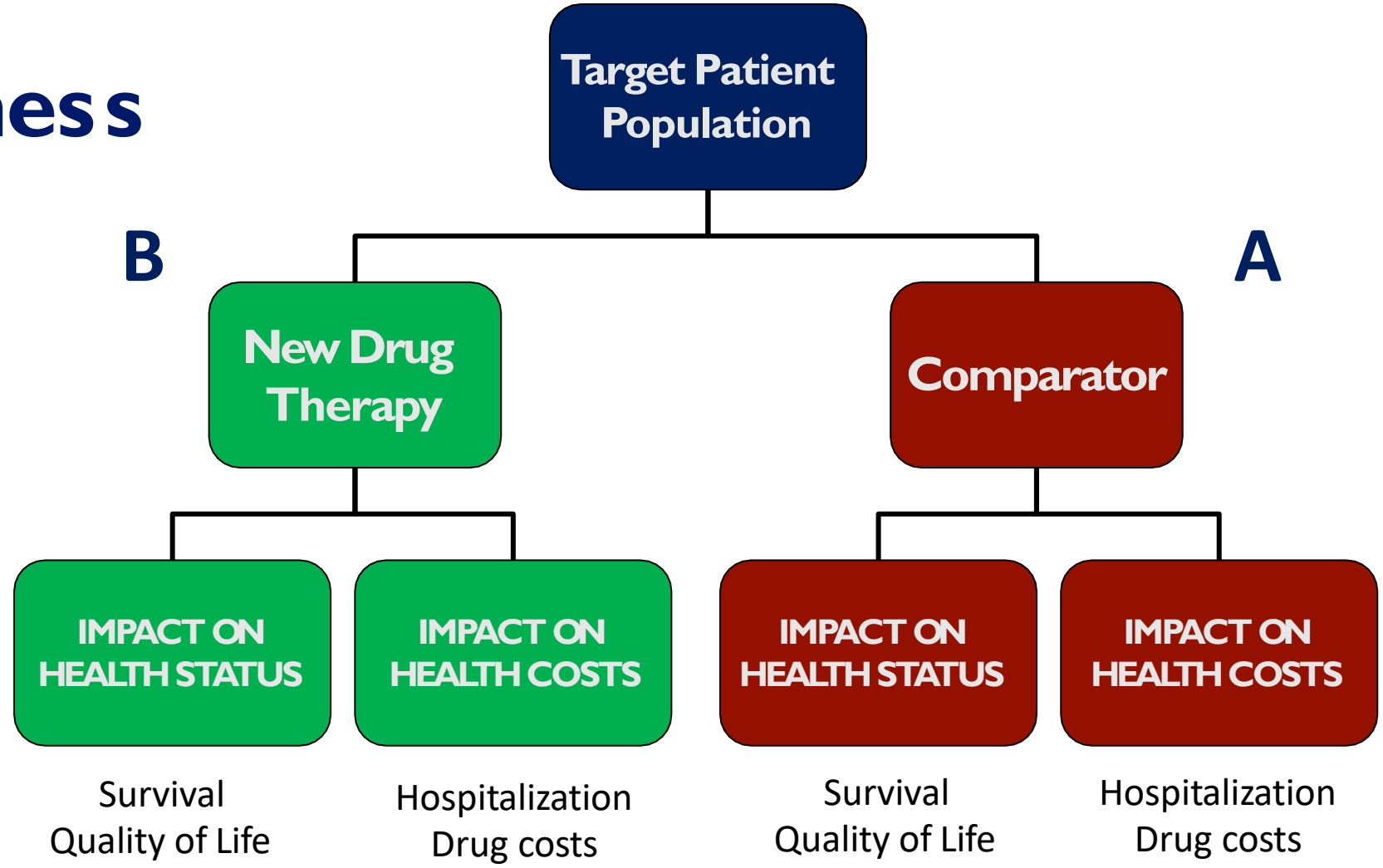By ADAM FEUERSTEIN @adamfeuerstein / MAY 24, 2019

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2.8 million Canadian dollars!

NOVARTIS

Source: https://www.statnews.com/2019/05/24/hold-novartis-zolgensma-approval/

Logic of cost-effectiveness analysis

Key metrics:

Quality-adjusted life-year (QALY)

Incremental cost-effectiveness ratio (ICER)

Target Patient Population

B

New Drug Therapy

A

Comparator

IMPACT ON HEALTH STATUS

Survival
Quality of Life

IMPACT ON HEALTH COSTS

Hospitalization
Drug costs

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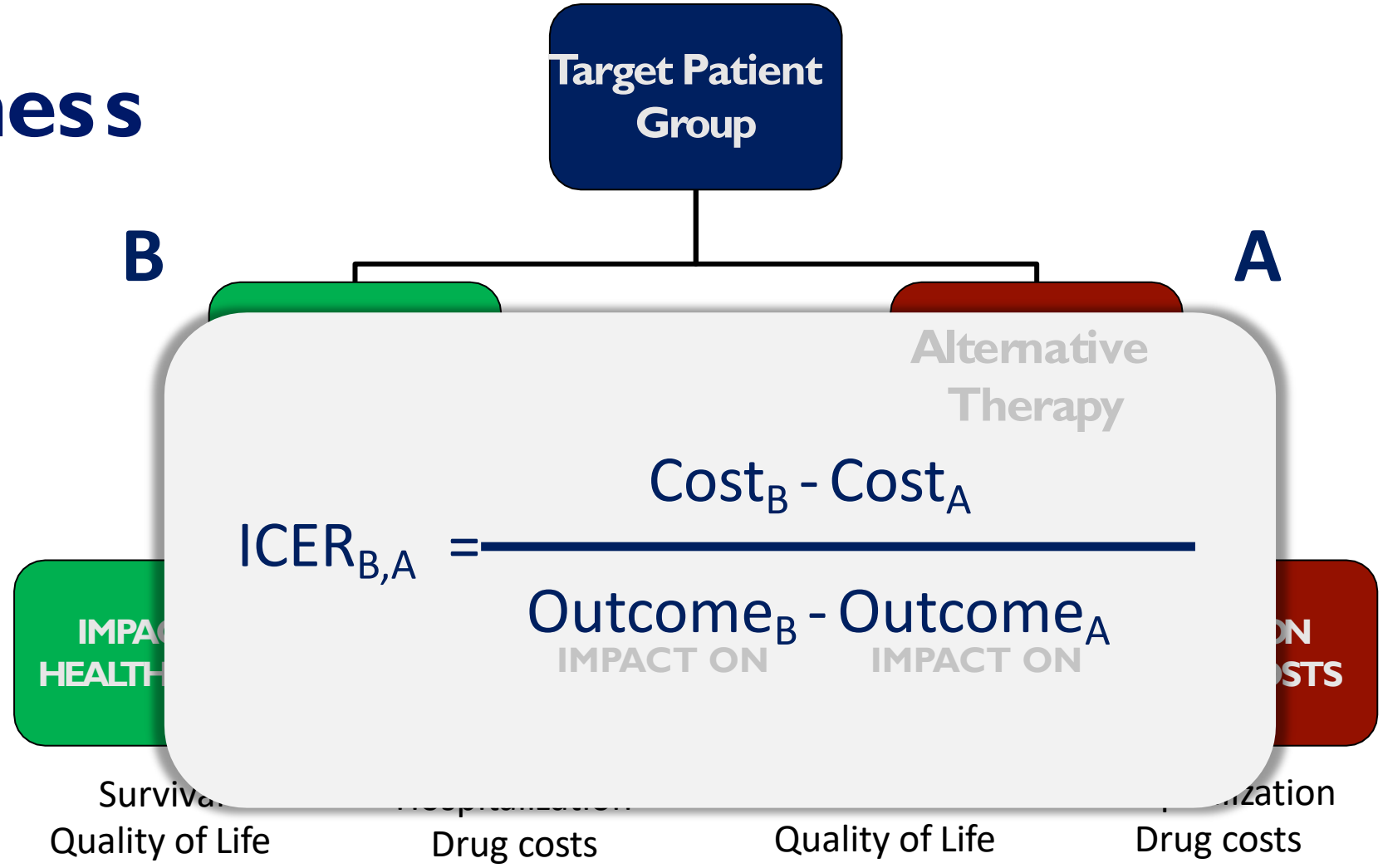
Incremental cost-effectiveness ratio (ICER)

Target Patient Group

B

A

Alternative Therapy

$$ICER_{B,A} = \frac{Cost_B - Cost_A}{Outcome_B - Outcome_A}$$

IMPACT ON HEALTH

IMPACT ON

IMPACT ON

Survival
Quality of Life

Hospitalization
Drug costs

Quality of Life

Hospitalization
Drug costs

E.g., $245,000 per QALY gained

Cost-effectiveness influences coverage decisions

➢ Is the ICER less than predefined threshold? (e.g. £20-30K/QALY in UK)

➢ ICER is not the only factor considered by payers

➢ But… larger ICERs *do* make reimbursement more difficult to achieve, even in the US market

Specialty drug coverage by 17 US commercial health plans

ICER ($/QALY)	% Restricted	Adjusted OR
< $50,000	18	Reference
$50K-$175K	22	1.86
$175K-$500K	30	1.86
>$500K	46	2.03

Source: Chambers et al. (2021) "Is an Orphan Drug's Cost-Effectiveness Associated with US Health Plan Coverage Restrictiveness? *PharmacoEconomics. Epub 26 Oct 2021*

Types of eHTA analyses

Headroom analysis	• Assumes maximum clinical benefit for target population • Estimates maximum reimbursable price for given indication • Upper bound of market size given value-based pricing
Threshold analysis	• Varies clinical parameters within plausible ranges • Identifies drivers of cost-effectiveness (i.e., value) • Minimum clinical performance required for cost-effectiveness
Many others…	• Value of information analysis to inform clinical trial design • Patient and provider preference studies • Budget impact analysis to assess affordability for payers

Potential eHTA Use Cases

➢ Screen possible indications for "headroom"

➢ Societal impact assessments for grant applications

➢ Identify target product profiles with strong value propositions

➢ Bottom-up market sizing for business plans

➢ Reimbursement risk assessment for investor pitches

➢ Inform evidence generation strategy at the clinical stage

eHTA Platform Activities

Community engagement
- ➤ Promote eHTA awareness and HQP capacity-building
- ➤ Gain understanding of user requirements for platform services
- ➤ Establish external partnerships within innovation ecosystem

Collaborative eHTA research
- ➤ Partner with life sciences teams to secure grant funding for eHTA
- ➤ Economist-led eHTA studies (full-service contract research)
- ➤ User-led eHTA studies (coaching and consultancy services)

Innovation in eHTA services
- ➤ Development of user-focused eHTA resources (e.g., self-assessment toolkit, user guide, case study examples)
- ➤ Iterative design and evaluation of standard operating protocols for economist-led and user-led eHTA studies

eHTA Platform Services

Initial Consultations ** No cost to NMIN-funded teams*	❖ Define eHTA needs, assess study options, suggest next steps
Grant Development ** No cost to NMIN-funded teams*	❖ Joint applications to NMIN's SI-KTEE/Commercialization Support program or external funding opportunities ❖ Integrate eHTA into a larger grant application
Planning Workshops	❖ Overview of eHTA methods and study options ❖ Co-design potential eHTA study with project team
Contract Research	❖ *Economist-led model -* Traditional contract research model ❖ *User-led model -* Life science teams take the lead in eHTA study; Platform provides resources, coaching, and quality assurance

Thank you!

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