Modeling and Simulation

With one of the largest and most experienced in-house teams of modelers, Evidera has designed, developed, and implemented hundreds of health economic and other models in all major therapeutic indications and for all major markets. Although the specific modeling method (e.g., decision tree, state-transition, discrete event simulation, survival partition, discretely integrated condition event) will vary depending on the research question and intended use of the model, all Evidera models are rigorously constructed, verified, and validated in accordance with the most recent modeling guidelines.

Our models have been used by biopharmaceutical and medical device manufacturers to:

- Demonstrate clinical and economic value (e.g., cost-effectiveness)
- Estimate direct and indirect economic burden, as well as budget impact
- Forecast the long-term effects of a therapy when only short-term data are available
- Inform clinical trial design and simulate expected outcomes
- Evaluate pricing scenarios and inform strategic planning and product development
- Support submissions to regulatory agencies and health authorities

Offerings include

Early Modeling
Inform go/no-go decision making and gap analysis

Economic Analysis
Assess interventions by estimating their health outcomes and cost consequences

Budget Impact Analysis
Quantify the financial consequence to payers of adopting an intervention

Epidemiologic Estimates
Forecast the size and makeup of target populations

Local Model Adaptations
Adjust models to specific countries to facilitate market access

STC and MAIC
Simulated Treatment Comparisons (STC) and Matching-Adjusted Indirect Comparisons (MAIC)

Disease Simulation
Understand the natural history of disease, its impact on patients and costs, and how interventions can modify these outcomes

Multi-Criteria Decision Analysis (MCDA)
Synthesize multiple sources of data to support investment decisions, benefit-risk assessments, and payer communications

Alzheimer's Disease ACE Simulator
Support commercial strategy development, inform clinical trial designs, and meet HTA[1] agency requirements for formal submission

Clinical Trial Simulation
Assess the impact of trial design features on the likely outcomes and help identify target populations and estimate sample sizes

Submissions Support
Support submissions to regulatory agencies and health authorities, including NICE, CADTH, and PBAC, among others[1]

Crossover Adjustment
Gain valuable information through rank preserving structural failure time (RPSFT) models, inverse probability of censoring weighted (IPCW) analyses, and simulation-based adjustment

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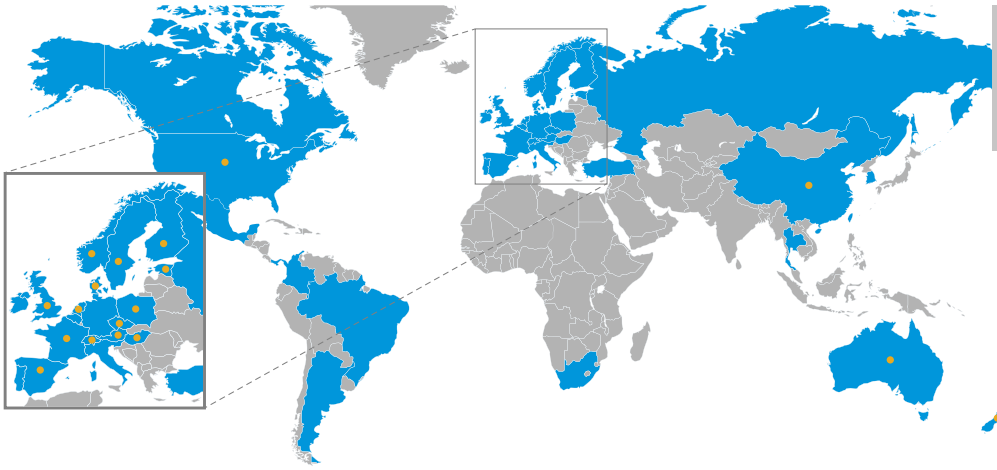
Global experience in health economic modeling and simulation



Developed global economic models and other adaptions

Developed economic models for **HTA submissions**

Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, USA

Our Team & EXPERIENCE

— 75+ —

Modelers in Europe, North America, and Asia

— 80+ —

Submissions to payer / health authorities supported

— 600+ —

Engagements to develop or adapt models

— 400+ —

Peer-reviewed publications

What Makes Us UNIQUE

— Innovative —

At the forefront of current methods, e.g., Alzheimer's disease ACE simulator, MCDA, clinical trial simulation, and advanced solutions in oncology

— Thought Leaders —

Numerous industry leadership roles, e.g., ISPOR-SMDM Task Force, ISPOR MCDA Task Force, and ISPOR Oncology Special Interest Group[2]

— Influence —

Developed and communicated evidence to influence payer / health authority decisions, e.g., developed economic model to influence fast-tracking of NICE decision[3]

[1] NICE = National Institute for Health and Care Excellence; CADTH = Canadian Agency for Drugs and Technologies in Health; PBAC= Pharmaceutical Benefits Advisory Committee; HTA = Health Technology Assessment

[2] www.ispor.org/taskforces/grpmodelingtf.asp, www.ispor.org/taskforces/multi-criteria-decision-analysis-grp.asp, www.ispor.org/sigs/oncology.asp

[3] www.nice.org.uk/News/Press-and-Media/nice-recommends-new-treatment-for-people-with-common-heart-condition

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