## 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

#### **Epidemiologic Estimates**

Forecast the size and makeup of target populations

#### **Disease Simulation**

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

#### **Clinical Trial Simulation**

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

#### **Economic Analysis**

Assess interventions by estimating their health outcomes and cost consequences

#### **Local Model Adaptations**

Adjust models to specific countries to facilitate market access

#### Multi-Criteria Decision Analysis

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

#### **Submissions Support**

Support submissions to regulatory agencies and health authorities, including NICE, CADTH, and PBAC, among others<sup>1</sup>

#### **Budget Impact Analysis**

Quantify the financial consequence to payers of adopting an intervention

#### STC and MAIC

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

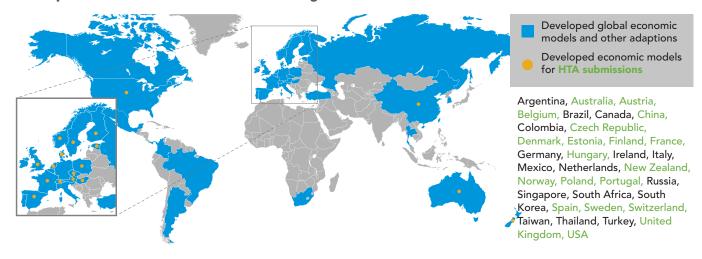
#### Alzheimer's Disease ACE Simulator

Support commercial strategy development, inform clinical trial designs, and meet HTA<sup>1</sup> agency requirements for formal submission

#### **Crossover Adjustment**

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

#### Global experience in health economic modeling and simulation



## 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

# Why EVIDERA?

### — Innovative —

Advancing current methods and developing new solutions, 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<sup>2</sup>

### — Influence —

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

<sup>&</sup>lt;sup>1</sup> 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

 $<sup>^2</sup> www. ispor.org/task forces/grpmodelingtf. asp, www. ispor.org/task forces/multi-criteria-decision-analysis-grp. asp, www. ispor.org/sigs/oncology. asp and the contract of the contract o$ 

<sup>&</sup>lt;sup>3</sup> www.nice.org.uk/News/Press-and-Media/nice-recommends-new-treatment-for-people-with-common-heart-condition