

# **Health Economics:** Database Analyses

Use our unique industry position to evaluate, identify, and access the right database to answer your research questions.

#### **Answers That Count**

We work with pharmaceutical, biotech, and medical device clients to design and implement retrospective database studies that address research questions about health economics and health outcomes.

We have experience with many North American and European cross-sectional and longitudinal datasets, as well as customized datasets. Using these databases, we have implemented studies to answer research questions on a variety of topics, including:

- · Burden (cost) of illness
- Cost of treatment
- · Health care resource utilization
- Treatment patterns
- Medication adherence and persistence
- Comparative effectiveness and costs of alternative treatments
- Disease prevalence and public health impact
- Safety studies

# Select and Access the Best Dataset

We can help you evaluate, identify, and access the dataset(s) most appropriate for your study. We do not have a proprietary position on or bias toward any specific data source, and our not-for-profit status as an independent research company allows us access to some datasets that may not be otherwise available. Additionally, we have professional connections to other organizations with access to health care data, and we can leverage those relationships to work collaboratively on your database studies. As appropriate, we ensure that data are de-identified to comply with HIPAA and other agency regulations.

We have experience with many types of data including:

- Claims data from commercial health plans, employers, Medicare, Medicaid, and Canadian provincial health systems
- · Electronic medical records
- Customized datasets collected via medical chart abstraction
- Data from the SEER cancer registry and SEER-Medicare linked claims data
- · Publicly available health survey datasets
- Hospital discharge datasets
- Clinical research data

### **Analytical Methods**

We conduct data analyses using appropriate analytical methods, including case-control cohort analyses and pre-post analyses.

As part of our process, we:

- · Access, process, and store data files
- Extract requisite data for each study objective
- Prepare detailed statistical analysis plans and study protocols
- Develop outcomes measurement algorithms
- Utilize propensity scores and other statistical techniques to control for selection bias and confounding
- Use multivariable analytic techniques, including Poisson regression, Cox proportional hazards, and generalized linear models to model outcomes
- Apply Kaplan-Meier techniques to appropriately summarize time-based measures (e.g., survival time)

Contact Us: info@rtihs.org www.rtihs.org

# RTI Health Solutions

### **Key Technical Staff**

#### Sean Candrilli, PhD

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#### **Keith Davis, MA**

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### See How We've Helped Others

We recently conducted a study using SEER-Medicare linked data to evaluate metastatic squamous non-small cell lung cancer treatment patterns and costs in a US Medicare population. Results from this study were published in *Lung Cancer*, 2015 Feb;87(2):176-85.

Using the MarketScan® Commercial Claims and Encounters Database, we estimated health care utilization and costs during episodes of care for type 2 diabetes mellitus-related comorbidities. The study results were published in *Journal of Diabetes and Its Complications*, 2015 May-Jun;29(4):529-33.

Drawing on clinical and administrative data from an inpatient facility, we assessed point-of-care platelet reactivity determination with VerifyNow-P2Y12 following administration of clopidogrel or prasugrel. Study results were published in *Hospital Practice*, 2014 Oct;42(4):7-15.

# We Have Experience With Many Data Sources, Including:

- Clinical Practice Research Datalink (CPRD) (previously GPRD)
- Health Survey of England (HSE)
- Healthcare Cost and Utilization Project (HCUP) family of databases
- · Integrated Health Care Information Systems
- Japan Medical Data Center Co. Ltd. (JMDC)
- Medical Expenditure Panel Survey (MEPS)
- Minimum Data Set (MDS)
- Medicare and Medicaid administrative claims data
- MedMining (linked claims and EMRs from Geisinger)
- National Ambulatory Medical Care Survey
- · National Death Index (NDI)
- National Health and Nutrition Examination Surveys (NHANES)

- National Health Interview Survey (NHIS)
- National Hospital Discharge Survey (NHDS)
- National Immunization Survey (NIS)
- National Trauma Bank
- Optum Lab Rx
- PharMetrics (formerly LifeLink)
- PHARMO Institute data
- Premier Perspective Rx database
- Saskatchewan Health (Canada)
- SEER-Medicare linked data
- Truven MarketScan Commercial Claims and Encounters (CCAE) Database
- Truven MarketScan Health and Productivity Management (HPM) Database

## **Custom Reports**

We deliver the results of your study in the format of your choice, including:

- · Detailed reports and slide decks
- Technical abstracts and posters
- · Presentations at professional meetings
- · Peer-reviewed journal articles