



## THE POWER OF RWE IN HEOR FOR HEALTHCARE OPTIMIZATION

### Abstract

This abstract discusses how Health Economics and Outcomes Research (HEOR) can be used to support a variety of objectives, ranging from clinical increments to access optimization, and commercial optimization. Examples of how HEOR can be used in each of these categories are provided, with a focus on patient similarity analytics, disease diagnosis, disease progression, therapy transition, market identification, marketing optimization, patient engagement, HCP outreach, disease diagnosis, disease progression, therapy transition, contextual and behavioral modeling, payer negotiations, payer contracting, discounts and rebates, value messaging and pricing. Data synergies that can be used to identify potential areas for improvement are also discussed. This abstract emphasizes the importance of understanding the value of healthcare interventions and highlights how HEOR can help to ensure that patients receive the best possible care.

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## HEOR Objectives

### Clinical increments:

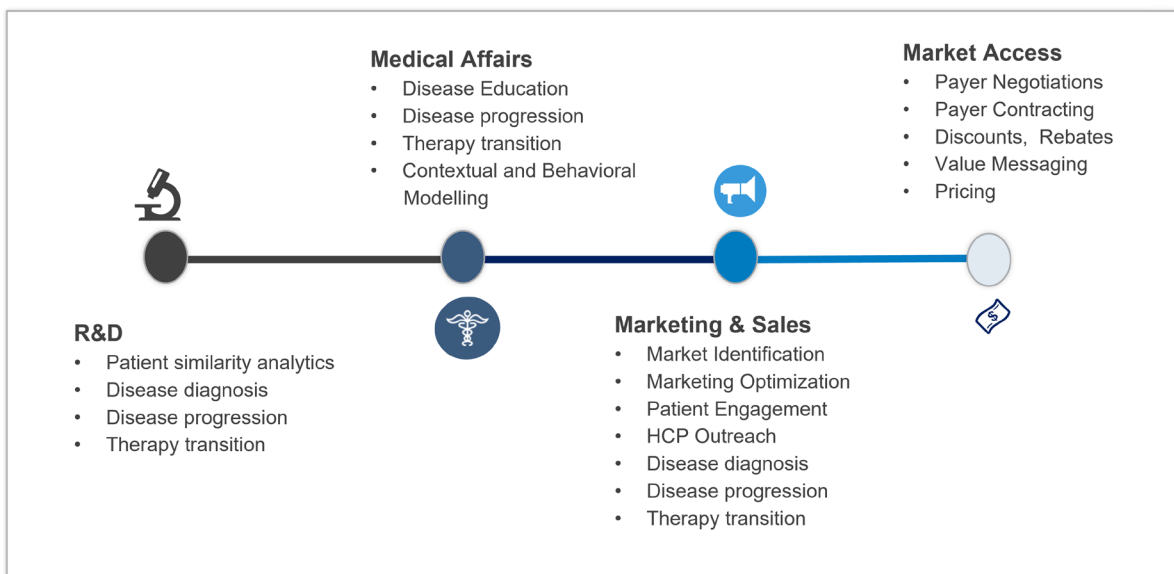
- To demonstrate the efficacy and safety of a new drug in a clinical trial
- To compare the efficacy and safety of two or more drugs in a clinical trial
- To identify the optimal dose and regimen of a drug
- To assess the long-term safety of a drug
- To study drug use in a specific population, such as children or the elderly

### Access optimization:

- To increase the number of patients who have access to a drug
- To negotiate favorable reimbursement rates for a drug
- To develop educational programs for healthcare providers about a drug
- To create a patient assistance program for a drug
- To work with payers to develop formulary coverage for a drug

### Commercial optimization:

- To increase the awareness of a drug among healthcare providers and patients
- To position a drug as the best treatment option for a particular condition
- To develop a marketing plan for a drug
- To track the sales and market share of a drug
- To conduct market research for a drug



## Research & Development

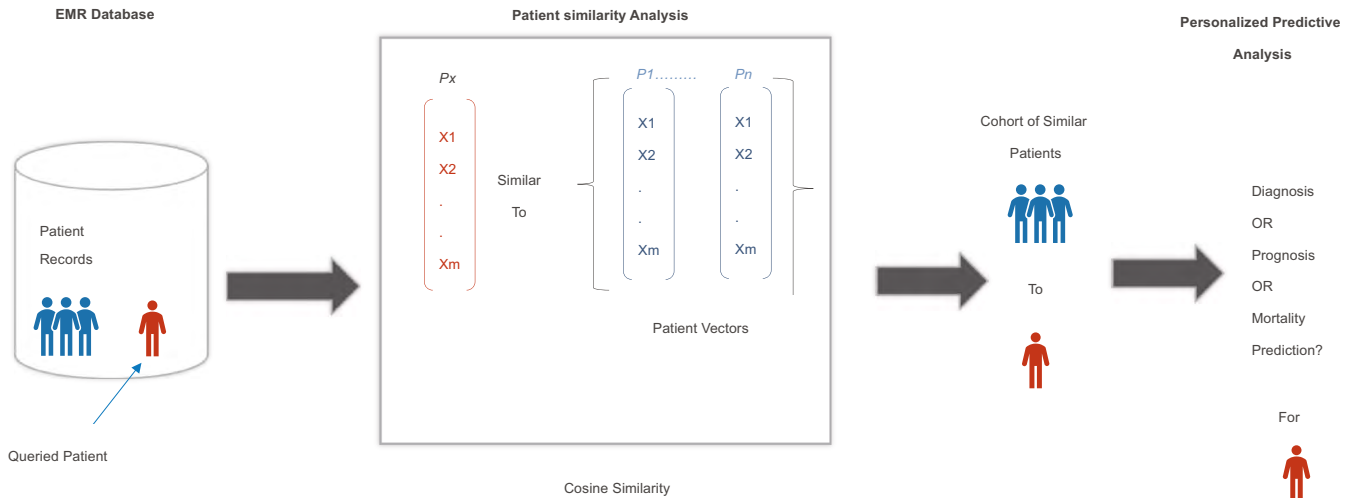
HEOR can be used to support a variety of R&D activities, including:

### Patient similarity analytics:

HEOR can be used to identify patients who are like each other

in terms of their disease, treatment history, and other factors.

This information can be used to develop targeted treatment strategies and identify patients most likely to benefit from a new intervention.[1][2][4]



Here are some specific examples of how HEOR can be used in this category:

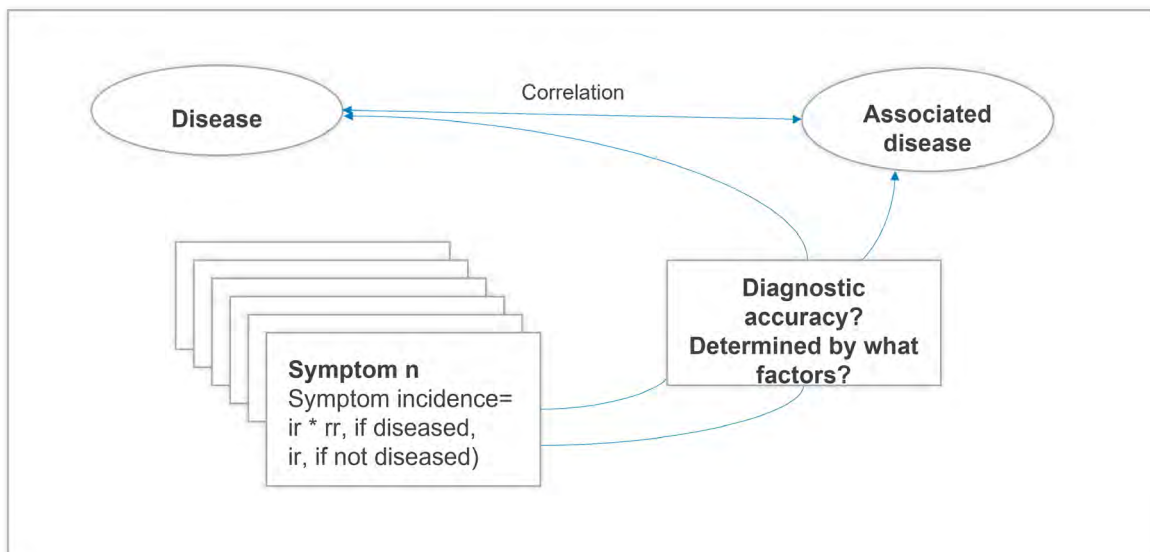
HEOR can be used to identify patients who are at high risk of developing a particular disease. This information can then be used to develop targeted prevention strategies for these patients.

This study sought to illustrate how patient similarity analytics can be used to create an understandable and explicable clinical risk prediction model (CRPM) for patients suffering from type-2 diabetes, hypertension, and dyslipidemia. To do this, electronic medical records data were employed to extract

patient information and incorporate patient similarity analytics to construct a case-based narrative that would support the predictions. The goal of the study was to display the efficiency of patient similarity analytics in constructing a CRPM that is explicable and interpretable using electronic medical records.[3]

### Disease diagnosis:

HEOR can be used to develop and validate diagnostic tools. This can help to ensure that patients are diagnosed with the correct disease and receive the appropriate treatment.



Here are some specific examples of how HEOR can be used in this category:

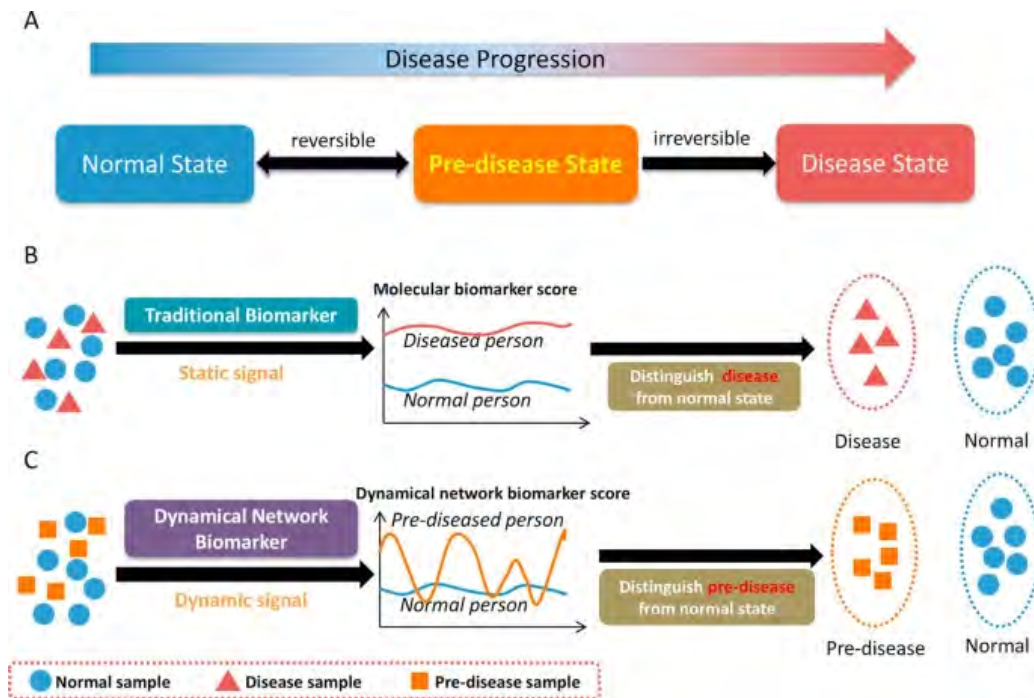
HEOR can be used to develop a new diagnostic tool for a particular disease. This tool can then be used to diagnose patients who otherwise would have been missed.

For example, HEOR can be used to evaluate the cost-effectiveness of a new blood test for the diagnosis of a specific type of cancer.

The research team can compare the cost of the test to other available tests for the same condition and can also assess the accuracy and reliability of the test in detecting cancer.[8]

### Disease progression:

HEOR can be used to track the progression of a disease over time. This information can be used to develop new treatments and to identify patients who are at risk of developing complications. [5] [6] [9][10]



Below are the specific examples of how HEOR can be used in this category:

HEOR can be used to track the progression of cancer in patients. This information can then be used to develop new treatments that target cancer at different stages of progression.

The study highlights how HEOR can be used to identify cost-effective strategies for managing chronic diseases and improving patient outcomes. It describes how a patient with chronic kidney disease was able to delay the need for dialysis through early and intensive management, which included frequent monitoring of laboratory values and adjustments to medication regimens. [10]

### Therapy transition:

HEOR can be used to understand how patients transition from one treatment to another. This information can be used to develop strategies to improve the transition process and to ensure that patients continue to receive the care they need. [13][16]

Some specific examples mentioned below on how HEOR can be used in this category:

HEOR can be used to understand how patients transition from inpatient to outpatient care. This information can then be used to develop strategies to improve the transition process and to ensure that patients receive the care they need at home.

For example, a patient with depression may start with psychotherapy as a first-line treatment. However, if the patient does not respond adequately, the treatment plan may need to be adjusted. HEOR could help to assess the clinical and economic value of the different treatment options available for depression, including the cost-effectiveness of switching from one therapy to another. This could help to inform the decision-making process for both the patient and the healthcare provider, ensuring that the treatment plan is evidence-based and personalized to the patient's needs.

HEOR can be a valuable tool for supporting R&D activities and the development of new and innovative healthcare interventions. By understanding the value of healthcare interventions, HEOR can help to ensure that patients receive the best possible care.



## Medical Affairs

HEOR can be used to support a variety of Medical Affairs activities, including:

### Disease Education:

HEOR can be used to develop educational materials for patients and healthcare providers about a disease. This information can help to improve understanding of the disease and its treatment options.[11][12]

Examples of how HEOR can be used in this category:

For example, HEOR can be used to develop a patient-friendly website about a particular disease. This website can provide information about the disease, its symptoms, and its treatment options.

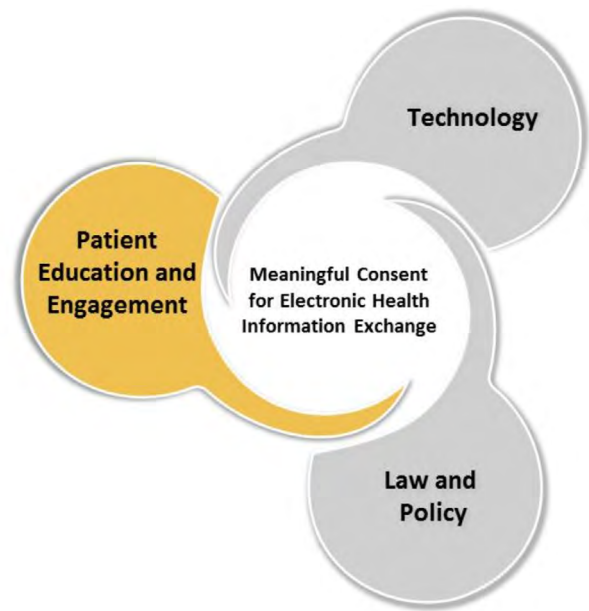
HEOR studies utilize real-world data to examine the effectiveness and cost-effectiveness of healthcare interventions. By analyzing this data, HEOR researchers can identify which interventions are most effective in treating specific diseases and provide valuable information to healthcare professionals and patients alike. This data can be used to educate patients about the importance of adherence to treatment regimens and the potential long-term benefits of disease prevention and management.

Disease Progression and Therapy Transition can be categorized in both areas of R&D and Medical Affairs

### Contextual and Behavioral Modelling:

HEOR can be used to understand the context in which patients make decisions about their health. This information can be used to develop strategies to improve patient adherence to treatment and promote healthy behaviors.[13][14]

HEOR can be a valuable tool for supporting Medical Affairs activities. By understanding the value of healthcare interventions, HEOR can help to ensure that patients receive the best possible care.

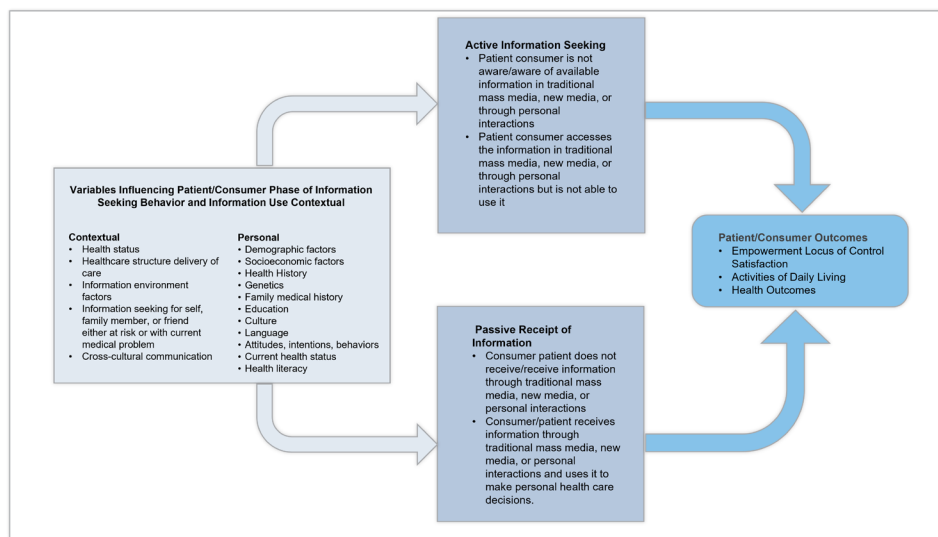


Here are some specific examples of how HEOR can be used in this category:

For example, HEOR can be used to understand the factors that influence patients' decisions about whether to take their medication. This information can then be used to develop strategies to improve patient adherence to treatment.

Health Economics and Outcomes Research (HEOR) can help in the context in which patients make decisions about their health by identifying interventions that are most effective for specific populations of patients. This can help patients make more informed decisions about their treatment options. HEOR data can also help close the gap between clinical trial results and real-world health outcomes, which can improve the accuracy of the information available to patients.

These are just some examples of how HEOR can be used in Medical Affairs. HEOR can be a valuable tool for supporting the development and implementation of effective medical affairs programs.



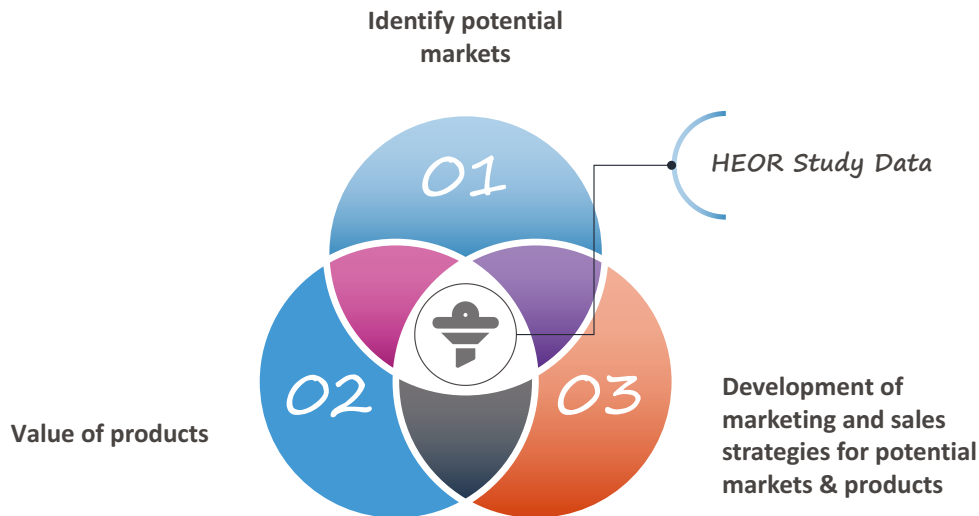
## Marketing & Sales

HEOR, or Health Economics and Outcomes Research, is a field of research that uses data and analysis to understand the value of healthcare interventions.

HEOR can be used to support a variety of Marketing & Sales activities, including:

### Market Identification:

HEOR can be used to identify potential markets for a new product or service. This information can help to inform the development of marketing and sales strategies. [15] [16]



Below are the specific examples to showcase how HEOR can be used in this category:

HEOR can be used to identify potential markets for a new product or service. This information can help to inform the development of marketing and sales strategies. For example, HEOR can be used to identify patients who are most likely to benefit from a new drug. This information can then be used to target marketing and sales efforts to these patients,

One example of how HEOR can aid in market identification is by assisting a company that develops a drug product for a rare disease like Duchenne Muscular Dystrophy (DMD) to navigate

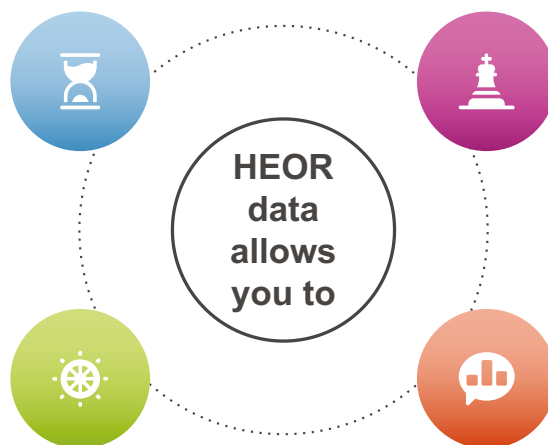
several different genetic mutations. HEOR studies can also help pharmaceutical manufacturers assess the value of their products, particularly in oncology care products, which can be useful in identifying the market for these products.

### Marketing Optimization:

HEOR can be used to optimize marketing campaigns and maximize their return on investment. This information can help to ensure that marketing campaigns are targeted to the right audience and that they are effective in generating leads and sales.[17]

*Determine the approximate size of the target patient population*

*Access the current market analysis*



*Assess any gaps in resource utilization, clinical workload, treatment unavailability, and other areas*

*Analyze prescribing behavior to determine which professionals are actively prescribing medications*

Here are some of the specific examples of how HEOR can be used in this category:

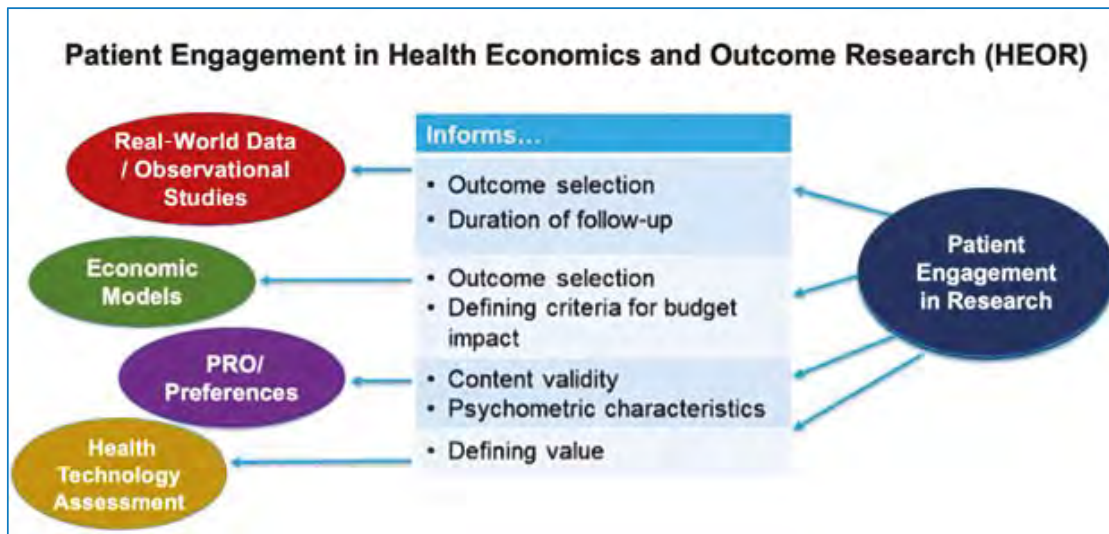
HEOR can be used to track the effectiveness of different marketing channels. This information can then be used to allocate marketing budgets to the most effective channels.

The potential use case for HEOR in marketing optimization could be in analyzing the real-world effectiveness and safety of a healthcare product or service. By evaluating real-world data and patient outcomes, HEOR experts can help identify which

marketing messages and claims are most effective in resonating with patients and healthcare providers. This information can then be used to optimize marketing messages and improve patient engagement and adherence.

### Patient Engagement:

HEOR can be used to understand patient needs and preferences. This information can help to develop patient-centered marketing and sales strategies.[18]



Specific examples of how HEOR can be used in this category are mentioned below:

For example, HEOR can be used to understand the factors that influence patients' decisions about whether to take a new drug. This information can then be used to develop marketing campaigns that address these factors.

The potential of patient engagement as a largely untapped resource in improving health outcomes worldwide. HEOR highlights how engaging patients in the design and delivery of care can lead to better health outcomes, and how HEOR can help in assessing the value and impact of patient engagement initiatives.

### HCP Outreach:

HEOR can be used to understand the needs of healthcare providers. This information can help to develop HCP-focused marketing and sales strategies.[13] [19]

Here are some of the specific examples of how HEOR can be used in this category:

For example, HEOR can be used to understand the factors that

influence HCPs' prescribing decisions. This information can then be used to develop marketing campaigns that address these factors.

HEOR studies utilize real-world data, and AI can be used to improve how data is collected, harvested, and utilized for HEOR studies. This can help capture patient-reported outcomes and predict possible outcomes in treatments. By using these predictions, medical affairs teams can have more informed discussions with HCPs, providing more valuable insights into the potential outcomes of different treatment options.

These are just some examples of how HEOR can be used in Marketing & Sales. HEOR can be a valuable tool for supporting the development and implementation of effective marketing and sales strategies.

Disease Diagnosis, Disease Progression and Therapy Transition can be categorized in the areas of R&D, Medical Affairs and Marketing & Sales

HEOR can be a valuable tool for supporting Marketing & Sales activities. By understanding the value of healthcare interventions, HEOR can help to ensure that the right products and services are marketed to the right people in the right way.



## Market Access

HEOR, or Health Economics and Outcomes Research, is a field of research that uses data and analysis to understand the value of healthcare interventions. HEOR can be used to support a variety of Market Access activities, including:

### **Payer Negotiations:**

HEOR can be used to develop and negotiate favorable reimbursement rates for a drug. This information can help to ensure that patients have access to the drug at a reasonable cost.[20]

Below are some of the specific examples of how HEOR can be used in this category:

For example, HEOR can be used to develop a model that predicts the cost of treating for a patient with a particular disease. This model can then be used to negotiate reimbursement rates with payers.[20]

One of the use cases where a pharmaceutical company that used HEOR data to demonstrate the cost-effectiveness of their drug compared to a competitor's drug. This allowed them to negotiate a more favorable reimbursement rate with payers.

### **Payer Contracting:**

HEOR can be used to develop and negotiate contracts with payers. These contracts can include terms such as reimbursement rates, formulary coverage, and patient access programs. [13][16][21]

Here are some of the specific examples of how HEOR can be used in this category:

For example, HEOR can be used to develop a contract with a payer that includes a formulary coverage guarantee. This guarantee would ensure that the drug is covered by the payer's formulary and that patients have access to it.

HEOR data can help identify interventions that are most effective for specific patient populations, which can be useful for payers in determining which drugs to cover. Furthermore, HEOR can help pharmaceutical companies demonstrate the value of their innovations to stakeholders such as physicians, payers, and patients, which can aid in the negotiation of contracts between payers and pharmaceutical companies.

### **Discounts and Rebates:**

HEOR can be used to negotiate discounts and rebates from payers. These discounts and rebates can help to reduce the cost of a drug for payers and patients.[22]



Here are some of the specific examples of how HEOR can be used in this category:

For example, HEOR can be used to negotiate a discount from a payer based on the number of patients who use the drug. This discount would help to reduce the cost of the drug for the payer and patients.

HEOR can assist in identifying the optimal rebate or discount strategy by considering the impact of various factors, such as patient needs, market dynamics, and healthcare costs. This can include evaluating the impact of different types of rebates, such as volume rebates, product mixes, and stocking incentives, on healthcare outcomes and costs.

### Value Messaging:

HEOR can be used to develop value messaging for a drug. This messaging can be used to communicate the value of the drug to payers and patients.[13][16]

Here are some of the specific examples of how HEOR can be used in this category:

For example, HEOR can be used to develop a value proposition for a drug that highlights the benefits of the drug and the cost savings that it can provide.

HEOR studies are designed to evaluate the cost-effectiveness and clinical outcomes of medical interventions, including pharmaceuticals. By generating evidence on the value of a

product, HEOR studies can help pharmaceutical companies in their value messaging efforts.

### Pricing:

HEOR can be used to inform the pricing of a drug. This information can help to ensure that the drug is priced fairly and that it is accessible to patients who need it.

Here are some of the specific examples of how HEOR can be used in this category:

For example, HEOR can be used to develop a pricing model that considers the value of the drug, the cost of developing and manufacturing the drug, and the costs of treating the disease that the drug is used to treat.[13][16]

HEOR studies can help pharmaceutical manufacturers assess the value of their products. This case study focuses specifically on oncology care products, but the benefits of these HEOR studies can apply to other therapeutic areas for cost-effectiveness analysis, which can help determine the optimal price point for a product based on its clinical and economic outcomes.

These are just some examples of how HEOR can be used in Market Access. HEOR can be a valuable tool for supporting the development and implementation of effective market access strategies. By understanding the value of healthcare interventions, HEOR can help to ensure that patients have access to the care they need.

## Data Synergies

The kind of data synergies you should be looking for HEOR Objectives in specific categories of Salesforce plan and activity, formulary and market access contracts, Epidemiology and incidence, Digital Activity, EHR, Claims, and patient records, Primary research, and KOLs depend on the specific objectives you are trying to achieve. However, some general data synergies that can be helpful include:

- Data from sales force plans and activities can be used to understand how the drug is being marketed and to identify potential areas for improvement.
- Data from formulary and market access contracts can be used to understand how the drug is being covered by payers and to identify potential areas for negotiation.
- Data from epidemiology and incidence studies can be used to understand the prevalence of the disease and to identify potential patient populations for the drug.
- Data from digital activity can be used to understand how patients are using the drug and to identify potential areas for improvement.

- Data from EHRs, claims, and patient records can be used to understand how the drug is being used in clinical practice and to identify potential areas for improvement.
- Data from primary research and KOLs can be used to understand the needs of patients and healthcare providers and to develop strategies to address those needs.



It is important to note that the data synergies that are most helpful will vary depending on the specific objectives you are trying to achieve. It is also important to note that data synergies can be complex and time-consuming to identify. However, the effort can be well worth it, as data synergies can provide valuable insights that can help you to improve your HEOR objectives.



## Conclusion

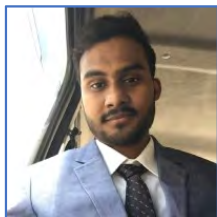
In conclusion, Health Economics and Outcomes Research (HEOR) can be an invaluable tool for supporting a variety of objectives, ranging from clinical increments to access optimization, and commercial optimization. HEOR can help to identify patient similarity, track disease progression, understand therapy

transitions, optimize marketing campaigns, and negotiate payer contracts. Additionally, HEOR can help to understand patient needs and preferences, develop value messaging, and inform pricing. Ultimately, HEOR can help to ensure that patients receive the best possible care by understanding the value of healthcare interventions.

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