# Article information:

Frontiers | Big Data and Real-World Data based Cost-Effectiveness Studies and Decision-making Models: A Systematic Review and Analysis  
<https://www.frontiersin.org/articles/10.3389/fphar.2021.700012/full>

# Article summary:

1. The cost-effectiveness analysis (CEA) is an economic evaluation technique used to compare outcomes and costs between two or more interventions.

2. Real-world data (RWD) from observational studies and other sources, such as medical claims data and electronic health records, have been increasingly used in CEA studies.

3. Big data combines data from a variety of sources and can be analyzed to predict diagnosis and medication administration patterns using artificial intelligence models such as machine learning to compare health-related interventions.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article provides a comprehensive overview of the use of big data and real-world data in cost-effectiveness studies and decision-making models. The article is well written, with clear explanations of the concepts discussed, including the definition of real-world data, the types of real-world data sources, and the characteristics of big data. The article also provides a detailed description of the methods used for literature search and review.

The article does not appear to be biased or one-sided in its reporting; it presents both sides equally by providing an overview of both RWD and big data in CEA studies. It also acknowledges potential challenges associated with using big data for CEA studies, such as unstructured data collection, management, cleaning, and analysis.

The article does not appear to contain any unsupported claims or missing points of consideration; all claims are supported by evidence from previous research studies cited throughout the text. Additionally, all counterarguments are explored thoroughly throughout the text. There is no promotional content present in the article; instead it provides an objective overview of both RWD and big data in CEA studies without favoring either side over the other.

Finally, possible risks associated with using RWD or big data for CEA studies are noted throughout the text; however, further research is needed to explore these risks in greater detail before they can be fully understood. In conclusion, this article appears to be trustworthy and reliable due to its comprehensive coverage of both RWD and big data in CEA studies without any bias or unsupported claims present throughout its text.

# Topics for further research:

* Cost-effectiveness analysis
* Real-world data sources
* Big data analysis
* Unstructured data management
* Data cleaning techniques
* Risk assessment in CEA studies

# Report location:

<https://www.fullpicture.app/item/0eb680fd52578ad1e5a3e07969454011>