

# Towards consistency and coherence in understanding the economic impact of disease

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## Background & Objective

There is an increase in the number of economic impact of disease studies. These studies use terms such as economic impact, economic burden, cost of illness, and economic cost interchangeably<sup>1,2</sup>. There is a continued methodological heterogeneity and conceptual shortcomings in these studies

Objective was to identify, and if necessary develop, a descriptive framework defining a nomenclature system for the relevant components and methods when identifying and quantifying the economic impact of disease

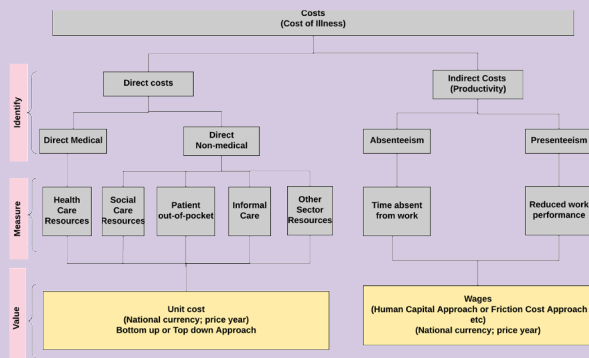


Figure 1: Components of the cost of illness

## Results

- Five articles were identified: two were used as the pearl in the traditional pearl growing search plus one more review article, a guide to critical evaluation and a textbook<sup>2-7</sup>.
- Neither an explicit definition of economic impact nor an existing descriptive framework were identified. Previous reviews aiming to assimilate values of economic burden of disease acknowledged the lack of a clear definition but none developed a descriptive framework to provide the basis for understanding published estimates from studies reporting the economic impact of disease.
- A framework was developed that acknowledges economic impact is dependant on the defined study perspective and time horizon. Economic impact was broadly divided into two components (i) Cost of illness Figure 1 and (ii) burden of disease. Figure 2.
- Figures 1 and 2 describe the potential methods available to identify, measure and value the economic impact of disease taking into account welfarist and extra welfarist approaches.

## Methods

The traditional pearl growing method was used to identify relevant review articles describing methods to quantify economic impact (cost of illness (COI)/burden of disease).

This search was supplemented with targeted searches of the grey literature using keyword based searches of publically available relevant websites (e.g. World Health Organization) and hand searching of textbooks relevant to health economics and economics of healthcare. Only literature published between 2000 to 2019 were included.

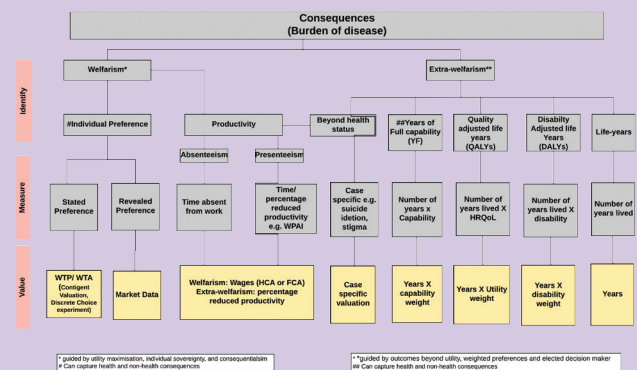


Figure 2: Components of the consequences of disease

## Conclusion

- The proposed framework of identifying, measuring and valuing economic impact specifies the need to be clear about the quantity of interest and the relevant perspective (patient, healthcare, and society) for defining economic impact of disease.
- This framework will enable the design and reporting of studies that identify, measure and value the economic impact of disease.
- This is the first necessary step towards improving consistency and coherence in understanding published estimates of COI and burden of disease.

## References

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