

Real-world data for costs related to cancer management in Brazil: an overview of the literature

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Introduction

- Cancer is a major public health concern. In Brazil, National Cancer Institute estimated 582,590 new cases for the year 2018. (1)
- The disease is related to an important clinical, social and economic burden to society, because of diagnosis and treatment resource utilization, and potential impairment for patients. (2)
- Advances in oncological treatments have imposed several challenges on health technology assessment process. (3)
- Estimation of the economic burden related to cancer may be performed through several strategies and helps financial planning. The addition of real-world data to this process may bring benefits, especially concerning external validity. (4)

Objective

- This study aims to review methods used to assess costs related to cancer management through Brazilian observational studies.

Methods

- A systematic review was carried out until March/2019 through a structured search on MEDLINE via Pubmed and LILACS databases.
- Search strategy was built considering a filter for economic studies and descriptors, keywords and MeSH/DeCS terms were used for each database specifically.
- The following inclusion criteria were considered for study selection: an observational design (cohort, case-control or cross-sectional); enrolling patients with any type of cancer; and conducted in Brazil.
- No language or time limits were used.

Results



Both databases retrieved 107 references, 18 studies were selected for full text analysis and 12 were included in the review. (5-16)



Lung was the most frequently studied site (n=3; 25%), followed by prostate (n=2; 16.7%). Other cancer sites were breast, skin, larynx, esophagus, cervix, head and neck, multiple myeloma and colon.



The majority (n=9; 75%) were retrospective cohorts, two were cross-sectional and one design was not defined by the author (Figure 1).



Data were retrieved from medical records in 58.3% of the studies and from secondary databases in 41.7% (Figure 2).



Bottom-up approach was the most frequently used to estimate costs (n=9; 75%) (Figure 3).



Direct costs were the main outcome of the studies and two studies have used these data to assess cost-effectiveness.

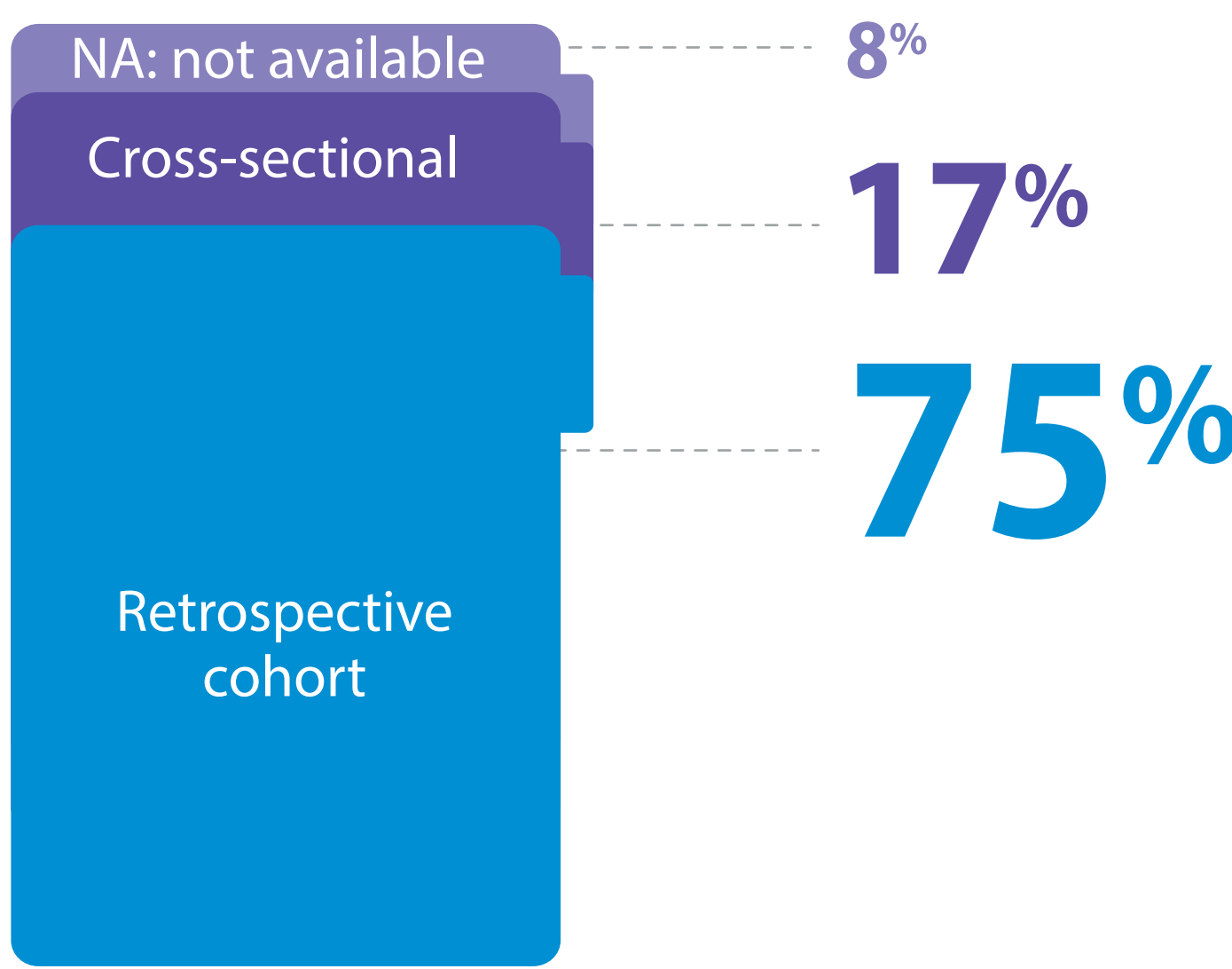


Figure 1- Proportion of each study design.

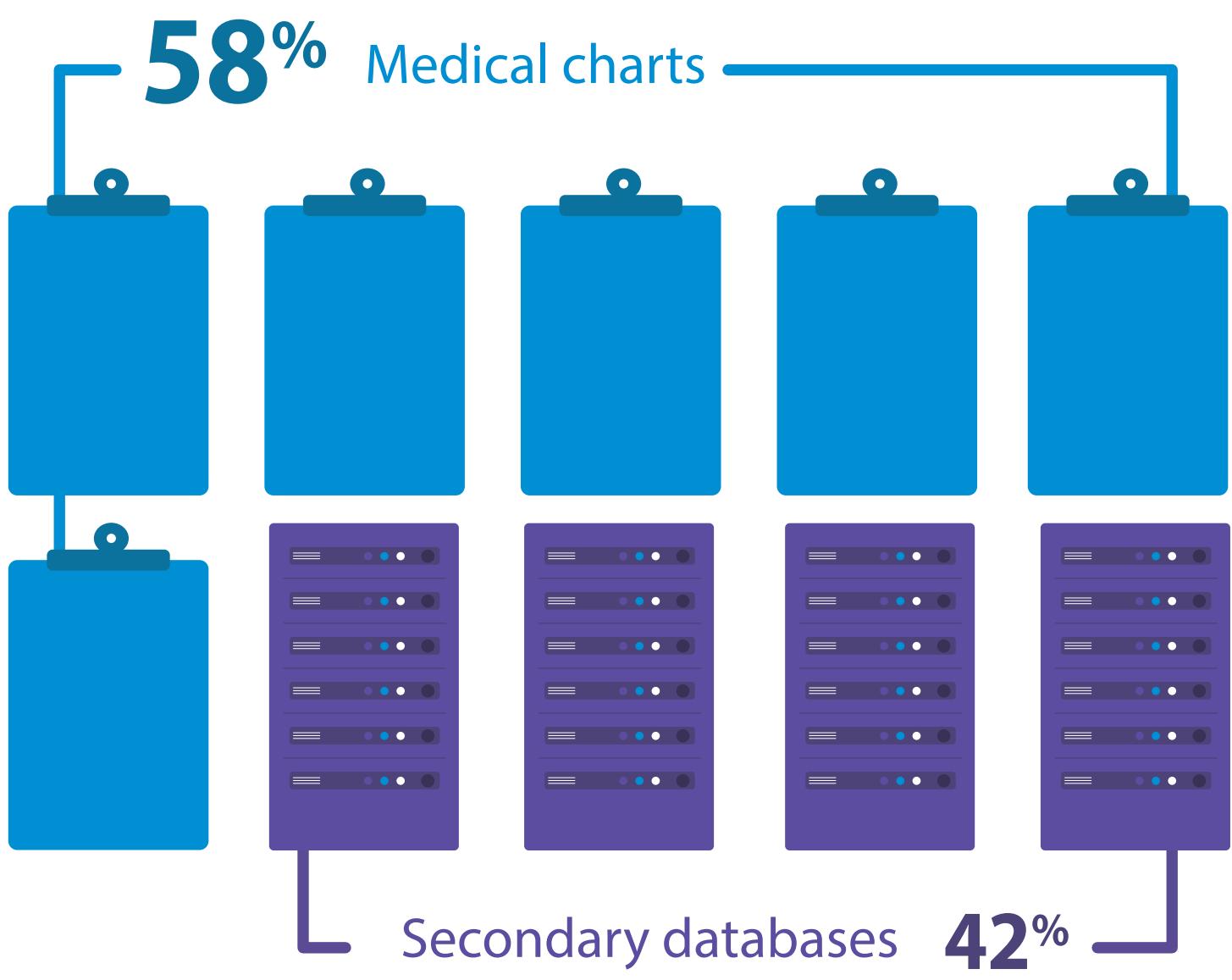


Figure 2- Proportion of data sources used in the studies.

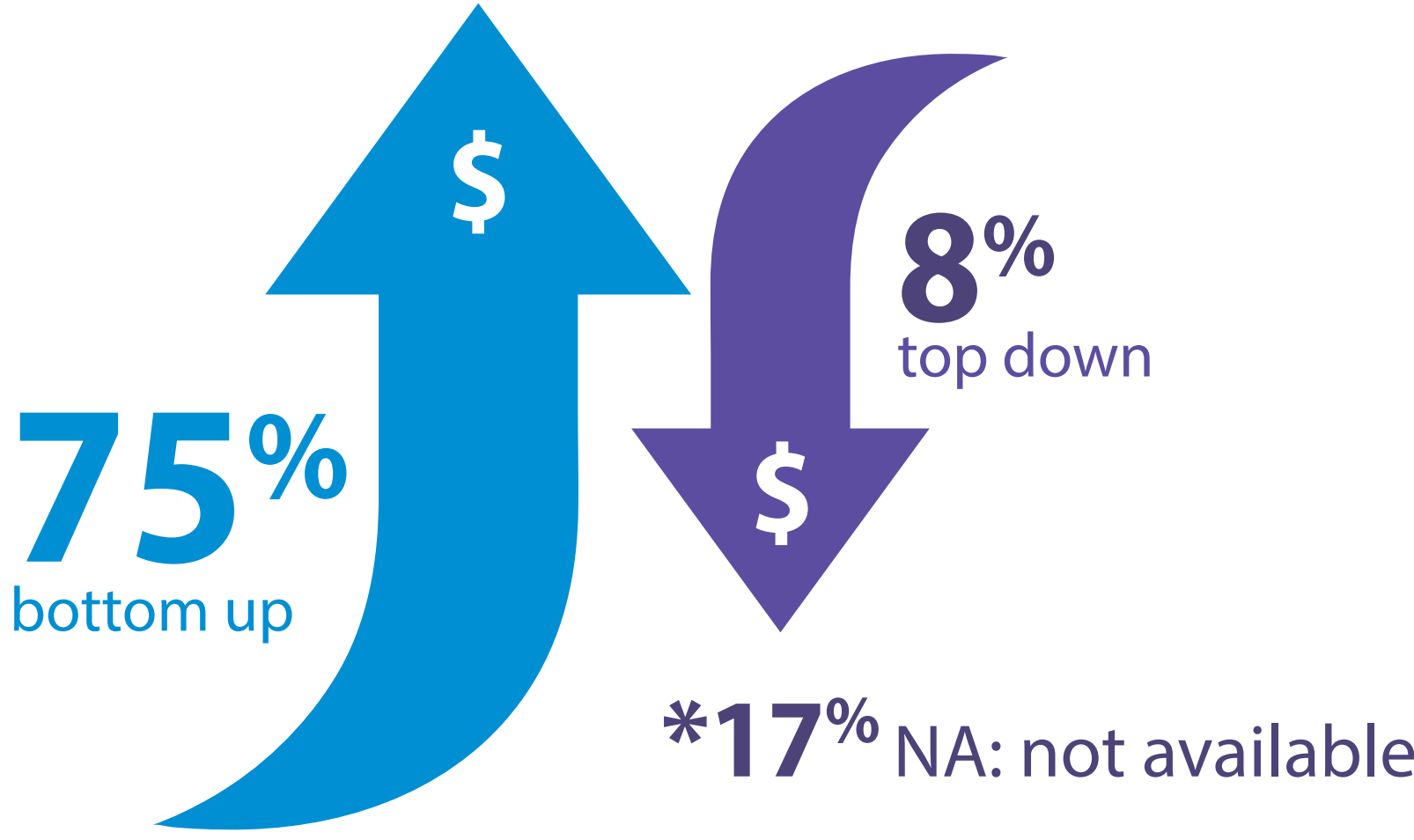


Figure 3- Proportion of each cost estimation method used.

Conclusions

- Costs related with cancer management in a Brazilian real-world setting are usually assessed through retrospective analysis, based on medical records and a bottom-up approach.
- The retrospective characteristic is an important limitation in costs estimation due to the dependence on availability of information.
- Data still shows that only few areas in oncology were studied, which highlights a lack of knowledge about disease burden and the need of further studies with higher methodological quality.

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Access full content

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