

INTRODUCTION

Breast cancer (BC) is a leading cause of global cancer incidence and mortality. BC represents the most prevalent cancer among Brazilian women, with notable mortality rates and economic impacts. It is considered a heterogeneous disease and the most common subtype in Brazil is hormone receptor (HR)-positive and human epidermal growth factor receptor-2 (HER2)-negative. Early detection and treatment are generally considered the most effective means of reducing BC mortality considering that the survival is heavily influenced by the stage of the disease. This study aims to describe real-world data on the economic burden, patient journey, and treatment patterns of BC in the Brazilian healthcare system.

METHODS

- **Study design:** observational retrospective database study conducted with a database provided by iHealth Group. Data is extracted using an NLP model and applied to various providers and institutions. By covering multiple providers and institutions distributed throughout Brazil, this study offers a holistic view of the complexities associated with breast cancer in the private healthcare system.
- **Inclusion criteria:** Patients with a medical record of breast cancer (ICD-10 code C50) from January 2017 to April 2023, diagnosed as HR-positive, HER2-negative, and treated within the private healthcare system.

RESULTS



5,330

patients were included in the study



57.66

Mean age of patients



66.65%

Were treated in the Southeast region of Brazil



30.36

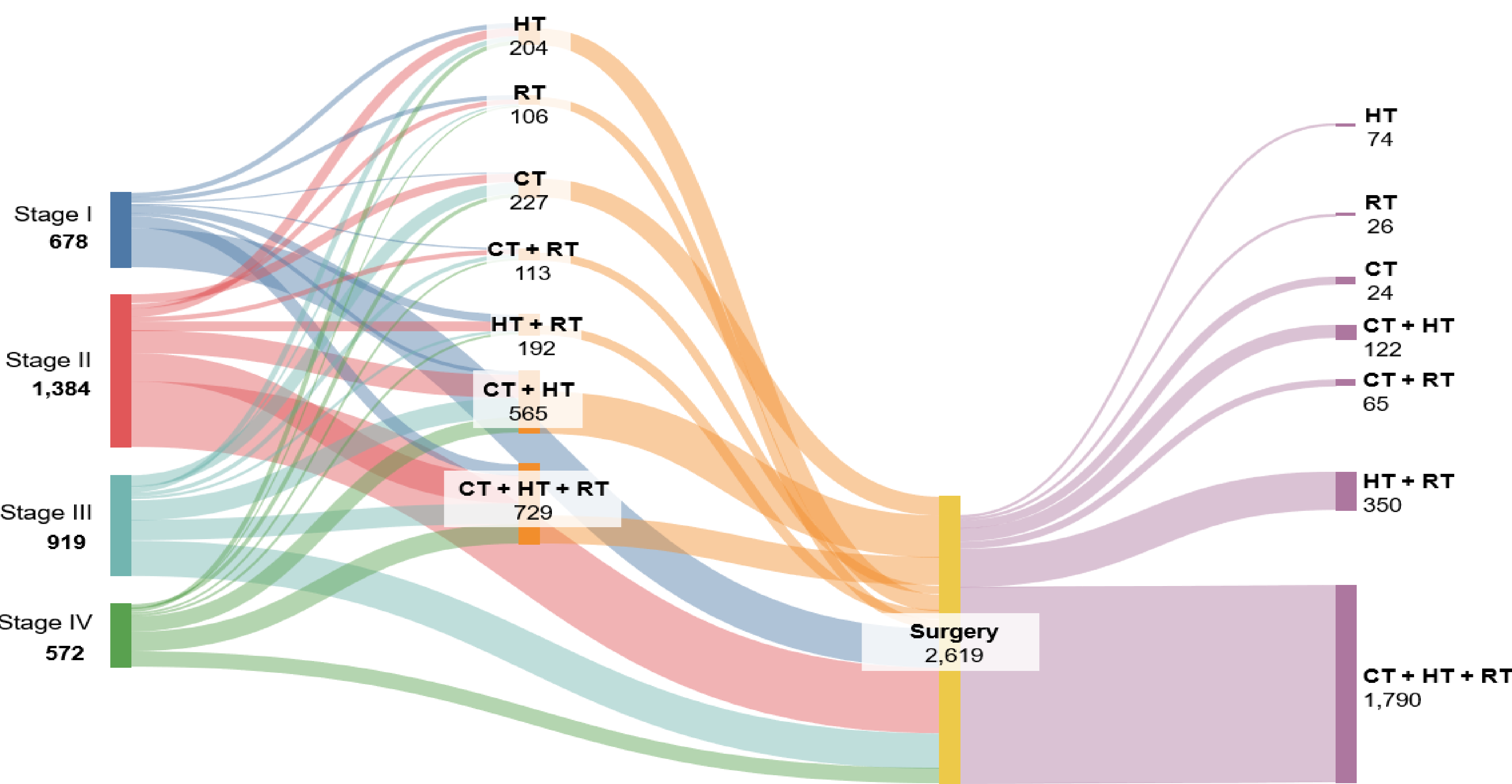
Average of visits to health facilities during treatment



R\$ 15,482.22

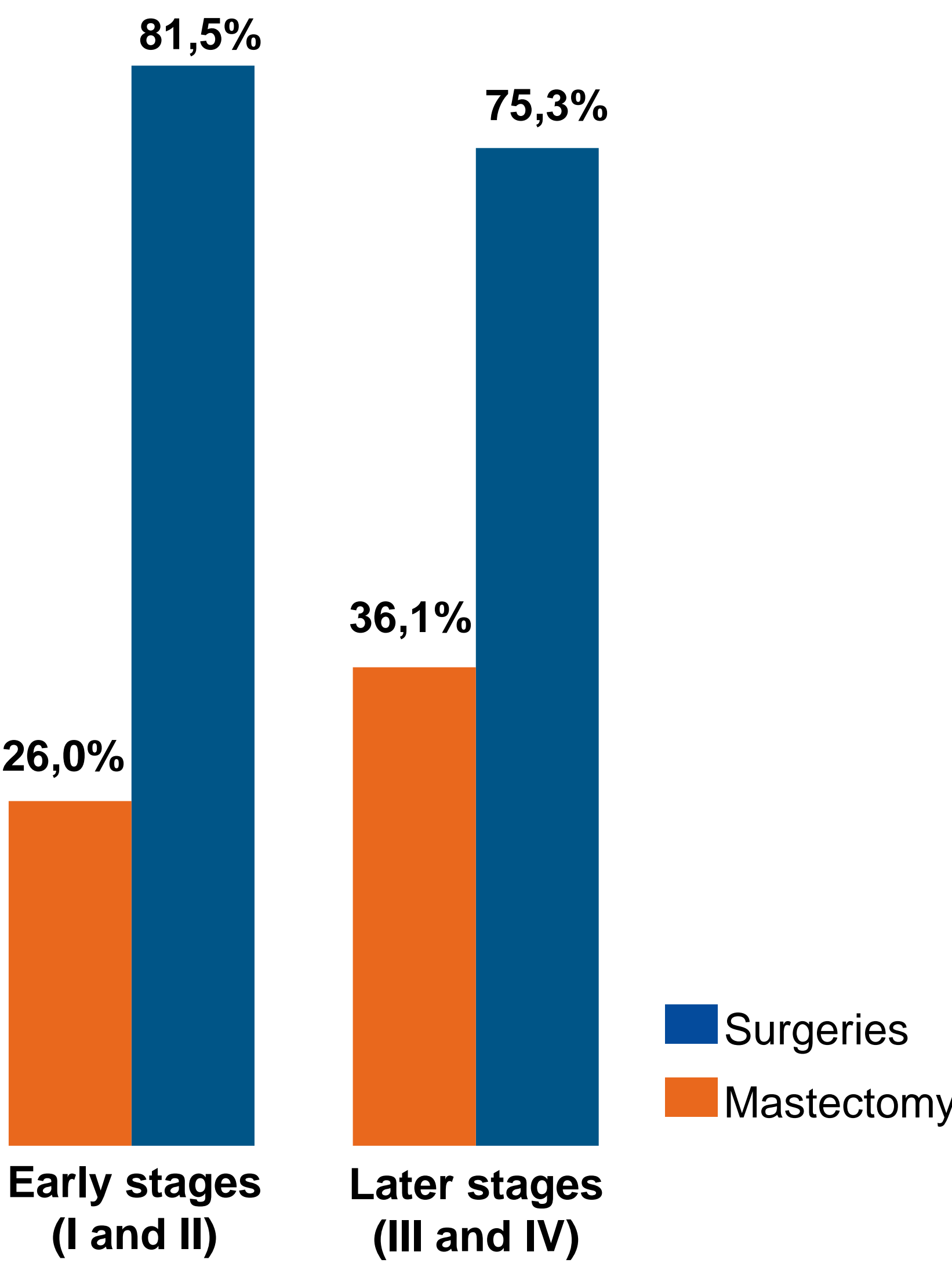
Average cost of surgeries performed

Figure 1. Sankey diagram of treatment patterns for HR+/HER2- breast cancer patients in the Brazilian private healthcare system.



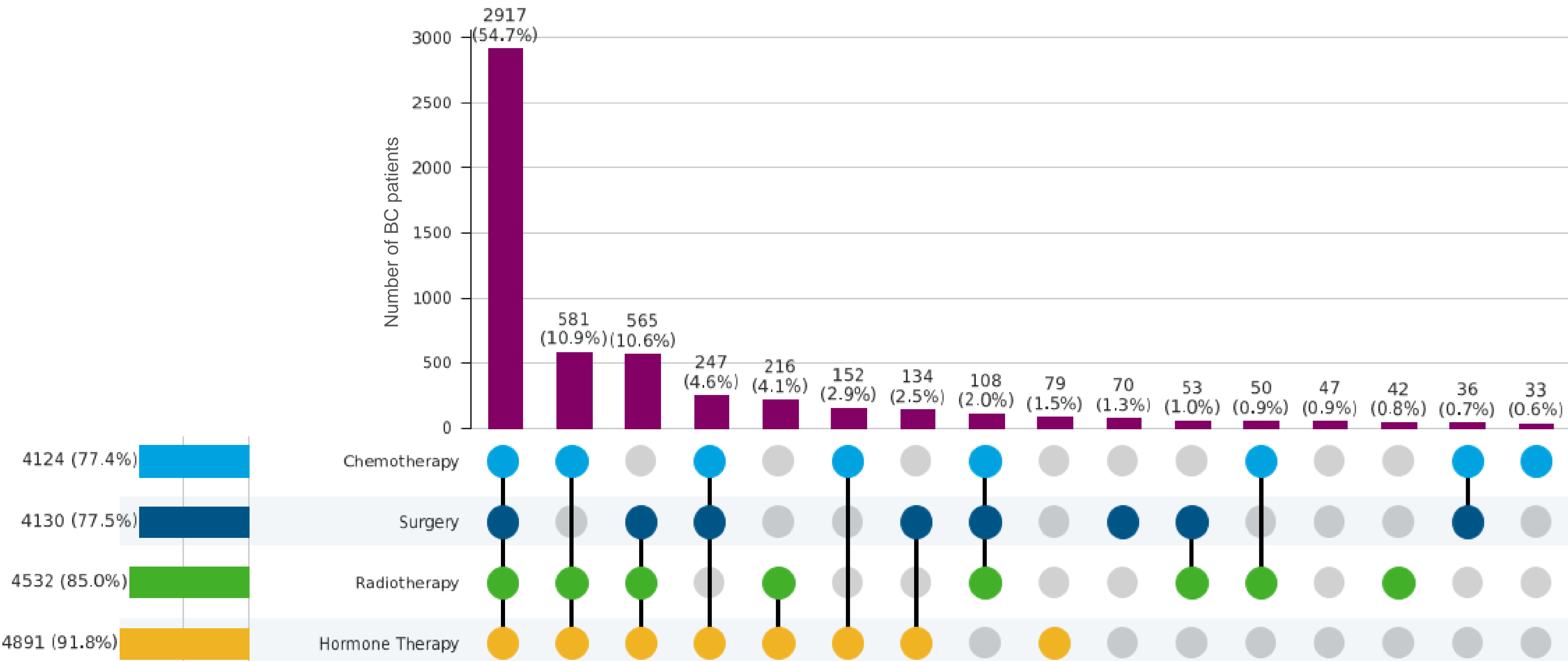
*CT: Chemotherapy; HT: hormone therapy; RT: Radiotherapy
**3,553 BC patients with clinical stage and treatment information available were included in the analysis of treatment patterns.

Figure 2. Distribution of BC patients who underwent surgical* treatments in the Brazilian private healthcare system.



*Surgical treatments includes mastectomy, lymphadenectomy, quadrantectomy, reconstruction, and resection.
**2,491 BC patients with clinical stage and surgical treatment information available were included in the analysis.

Figure 3. UpSet plot of treatment journey for HR+/HER2- breast cancer patients in the Brazilian private healthcare system.



CONCLUSIONS

This study has successfully provided valuable insights into the treatment journey of HR+/HER2- BC within the Brazilian private healthcare system. Considering that most patients underwent all four types of treatment (chemotherapy, surgery, radiotherapy, and hormonal therapy) over time, and surgery has proven to be a viable option for patients at all stages, BC represents a significant economic burden, with higher healthcare resource utilization compared to other types of cancer. Due to the retrospective nature of the study, the major limitation is that the data are often incomplete, which is intrinsic to retrospective database studies.