

# Estimating the total cost for patient reported outcomes in patients with breast cancer in the Chilean health care system

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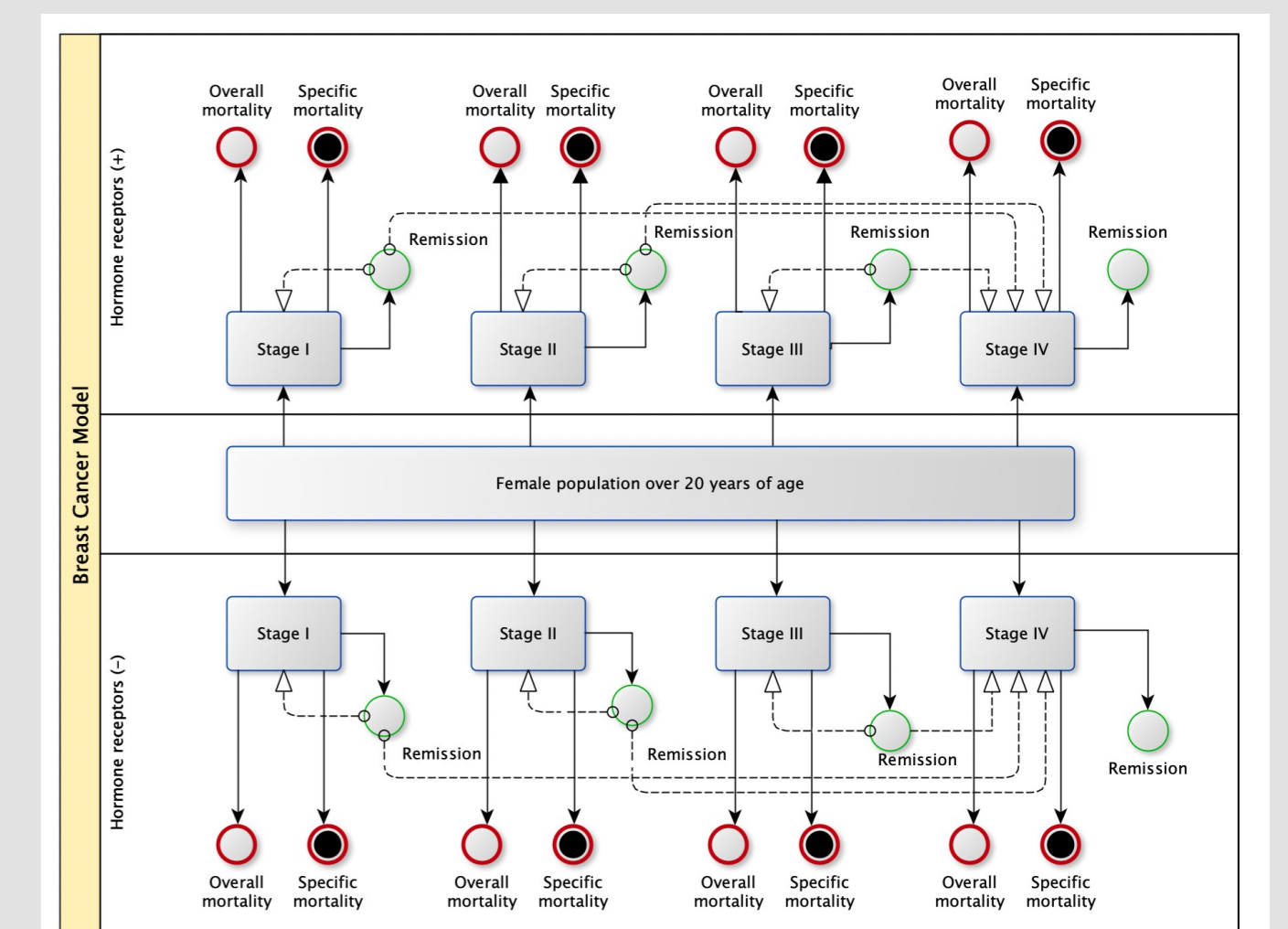
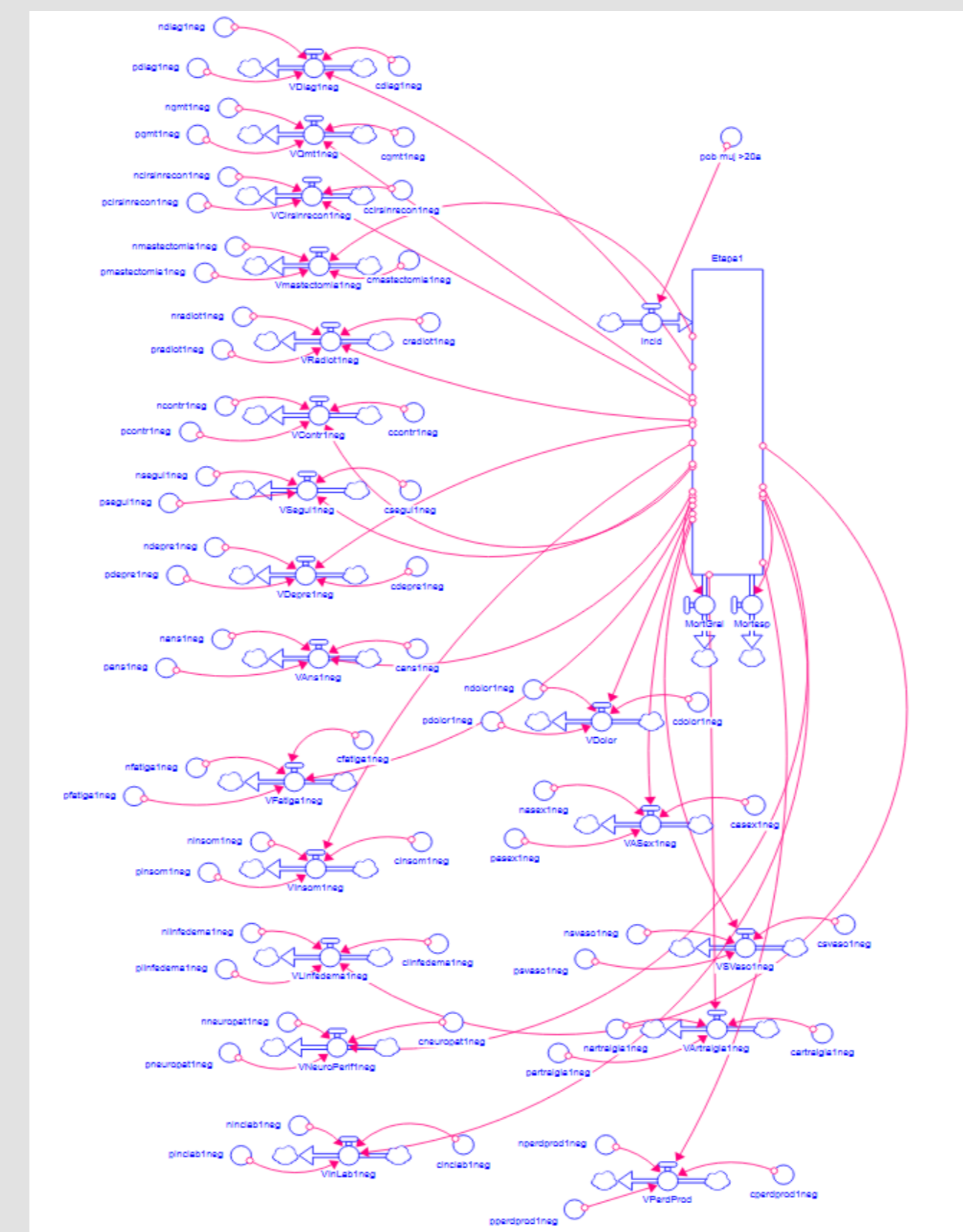
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## Background and motivation

Breast cancer (BRCA) is the most frequent cancer in women in developed and developing countries. The incidence of BRCA is rising worldwide due to the increasing life expectancy and the adoption of Western lifestyle. Despite the implementation of preventive actions to reduce the risk of late diagnosis, these have not been able to avoid diagnosis in advanced stages. Beyond the traditional cost of care in the clinical setting, there are indirect consequences related to the disease that are often forgotten when estimating the economic burden of the disease. This work aims to assess the economic burden of patient-reported outcomes (PROs) beyond the traditional resources related to the clinical management of the disease and its consequences.

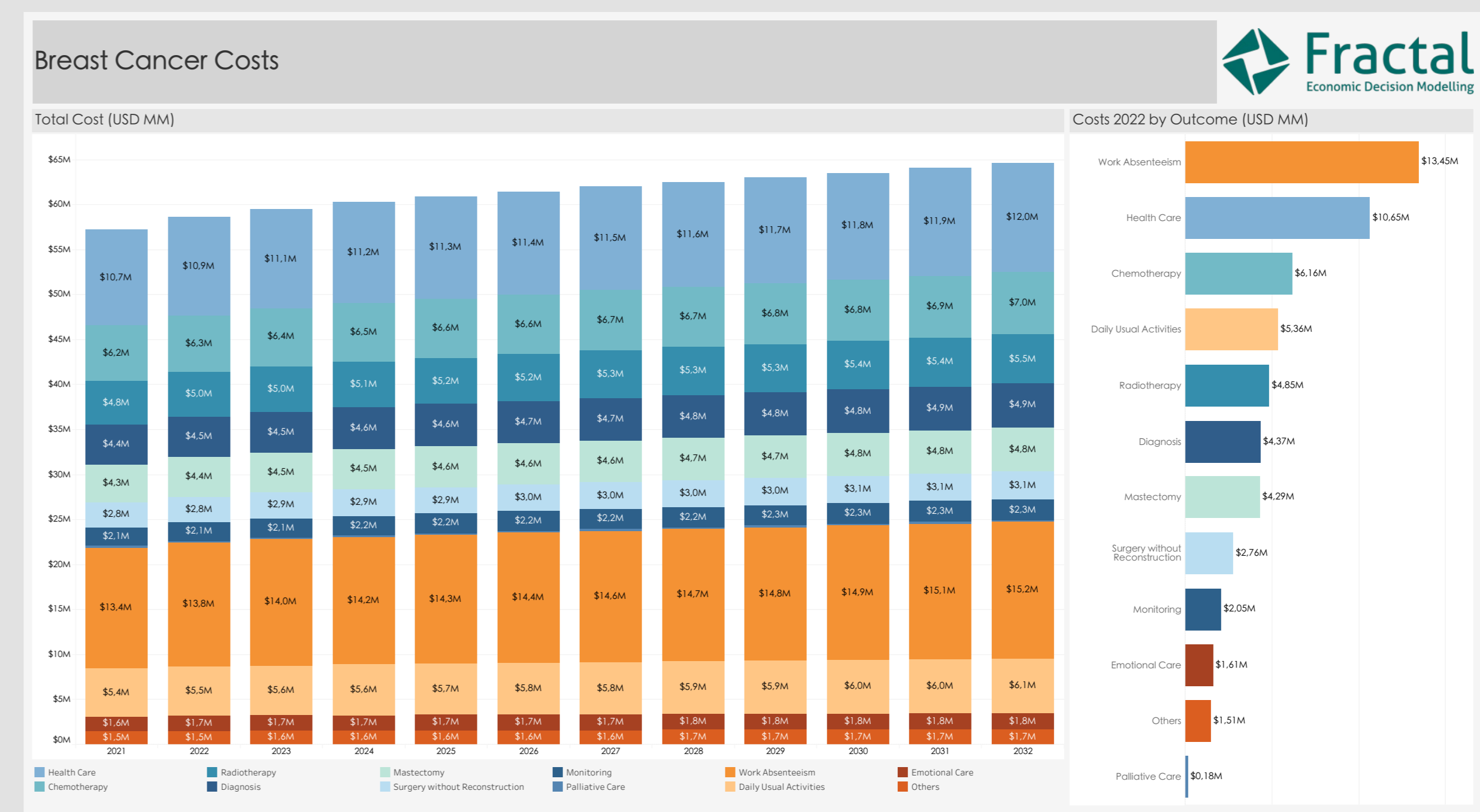
## Methods

This study was conducted from the Chilean public payer's perspective to identify and quantify resources. A stock and flow model was built to estimate the future consequences of BRCA in Chile. Clinical and non-clinical outcomes were obtained through a systematic review of the literature, which was listed and appraised. Future costs were estimated based on the number of cases (patient populations), the expected proportion of consequences reported as PROs, and the cost per case for each PRO. Parameters uncertainty was assessed by Monte-Carlo simulation, assigning statistical distributions to each parameter and performing 1,000 iterations. The results are presented as ranges of expected costs and cases.



## Results

By 2032, the total expected number of BRCA patients in Chile will be 6,653, with a split of 2,362 in stage I, 2,588 in stage II, 1,337 in stage III, and 366 in stage IV. The total cost of BRCA management is expected to be USD 60 million for the population, with 61,7% related to the clinical management of the disease and 38,3% to consequences beyond clinical control. Among the non-clinical cost, the most critical PROs is working absenteeism, impact on usual daily activities, and emotional care.



## Concluding Remarks

As expected, the highest clinical cost was disease management (diagnosis and treatment), while outpatient visits and palliative care were the least relevant. Absenteeism from work was the first of the nonclinical costs, followed by the impact on daily activities and emotional care. The burden of indirect consequences of BRCA equals 38.3% of the total cost of disease management, which needs to be addressed to focus on what matters most to patients and deliver more value.

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