# Living with Triple-Negative Breast Cancer in Portugal: More Debilitating or Lethal?

Silva J<sup>1</sup>, Sousa G<sup>2</sup>, Costa L<sup>3</sup>, Brito M<sup>4</sup>, Oliveira S<sup>5</sup>, Rodrigues B<sup>1</sup>, **Ferreira J<sup>1</sup>**, Borges M<sup>6</sup>, Silva Miguel L<sup>6</sup>

<sup>1</sup>MSD, Oeiras, Portugal; <sup>2</sup>Oncology Division at Centro Hospitalar e Universitário de Coimbra-CHUC, Coimbra, Portugal; <sup>3</sup>Oncology Division at Hospital de Santa Maria-CHULN, Lisbon, Portugal; <sup>4</sup>Oncology Division at Instituto Português de Oncologia-IPO, Lisbon, Portugal; <sup>5</sup>Oncology Division at Hospital Santo António Capuchos-CHULC, Lisbon, Portugal; <sup>6</sup>IQVIA, Oeiras, Portugal;

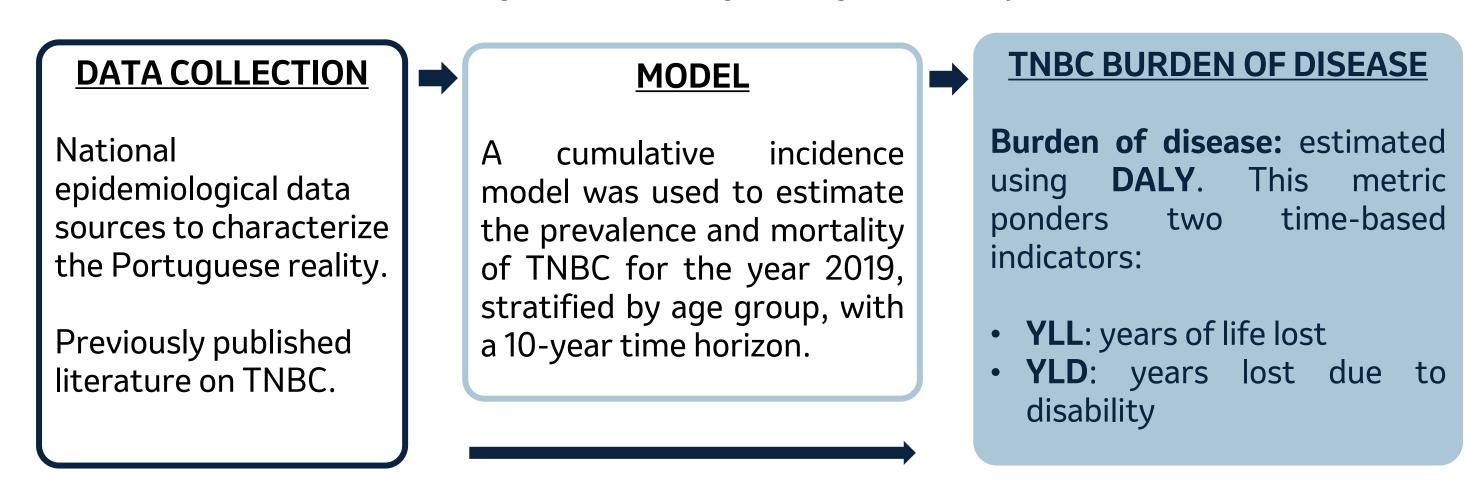
# **Background and Objectives**

- Breast cancer (BC) is the 2<sup>nd</sup> neoplasm with the highest incidence globally, accounting for more than 2 million new cases every year. It is also the leading cause of death from cancer in females (13.6 deaths/100,000)<sup>1</sup>.
- Triple-negative breast cancer (TNBC) is associated with lower survival rates and higher early recurrence rates among younger women compared to other types of breast cancer (BC)<sup>2</sup>.
- TNBC accounts for approximately 15% of all BC cases<sup>3</sup>.
- In this study, we aimed to determine the clinical and humanistic burden of TNBC in female population in Portugal in 2019, from a societal perspective.

### Methods

• A cumulative incidence model, based on national epidemiological data was used to estimate TNBC's prevalence (*Figure 1*). Burden of disease was expressed using disability-adjusted life years (DALY).

Figure 1: Methodological design of the study



### Results

- In 2019, there were **7,052 prevalent cases** and **676 deaths** due to TNBC among women in Portugal.
- The **majority** of new TNBC cases were diagnosed at **Stage I-II** (*Table 1*).

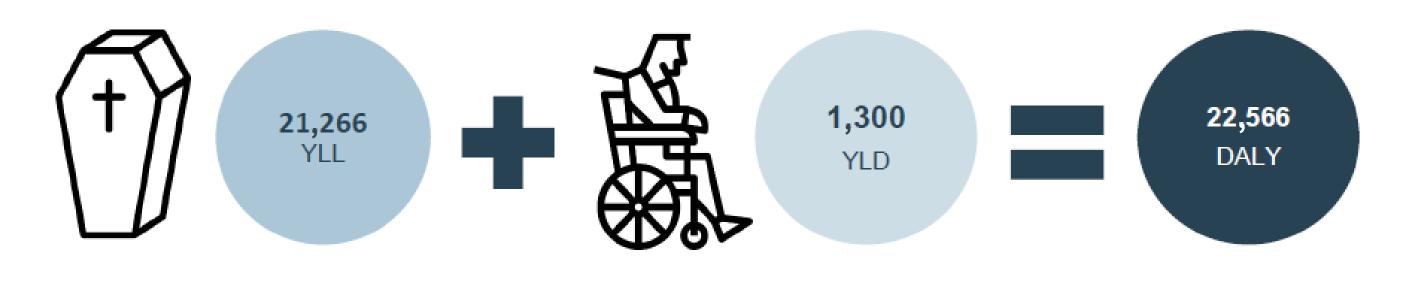
Table 1: Distribution of female patients per cancer stage (%).

Cancer stage (TNM)	Distribution (%)
Stage I	24.24
Stage II	29.11
Stage III	27.44
Stage IV	19.21

TNM: Tumor-node-metastasis classification

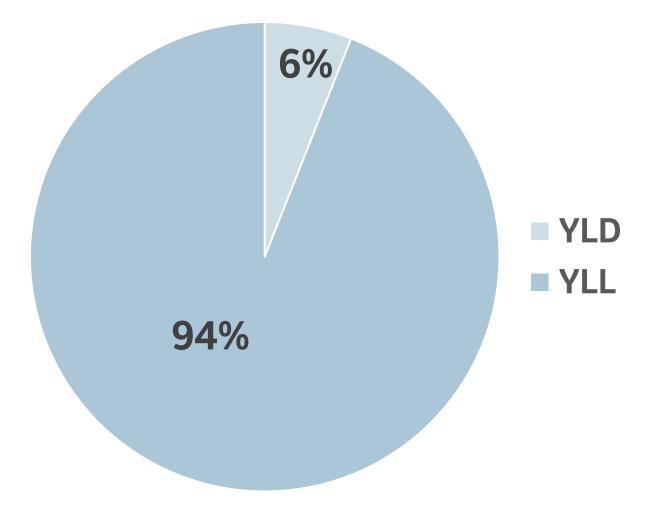
• Considering a total of **1,272 new cases** from TNBC, the humanistic burden was estimated to be **22,566 DALY/year** (*Figure 2*).

Figure 2: Burden associated with TNBC in Portugal in 2019.



- Deaths resulted in **21,266 YLL** and TNBC was found to be responsible for **1,300 YLD**.
- The lethal feature of TNBC is depicted by the significant difference observed between both metrics, with **YLL being accountable for 94%** of total burden (*Figure 3*).

Figure 3: YLL and YLD distribution.



Regardless of disease stage, YLD and YLL were **higher** among women aged between 45-49 years old, clearly reflecting a **substantial TNBC burden** among a **younger** set of female patients.

# Conclusions

- In 2019, TNBC accounted for 22,566 DALY.
- Although accounting for only 15% of new BC diagnoses, TNBC subtype bears an astounding 46% of the total burden associated with BC, highlighting the undeniable impact of this aggressive subtype on female patients' lives<sup>4</sup>.
- These findings reinforce the lethality of this BC subtype, clearly depicted by the total value of YLL which far outweighs the YLD among female patients (21,266 YLL vs. 1,300 YLD).
- Based on these results, adopting more effective disease management strategies and health policies may be relevant, particularly in earlier stages, to potentially reduce the real burden of TNBC to society and Portuguese healthcare system.

## References

- 1. International Agency for Research on Cancer (IARC). GLOBOCAN 2022 Estimated Cancer Incidence, Mortality and Prevalence Worlwide in 2022.
- 2. Dent, R., et al., Triple-negative breast cancer: clinical features and patterns of recurrence. ClinCancer Res, 2007. 13(15 Pt 1): p. 4429-34.
- 3. Kumar, P. and R. Aggarwal, An overview of triple-negative breast cancer. Arch Gynecol Obstet, 2016. 293(2): p. 247-69.
- 4. Sociedade Portuguesa de Oncologia, Manual de Oncologia SPO: Abordagem e tratamento do cancro da mama. 2020.

João Ferreira joao.ferreira@merck.com