

ABSTRACT

Out-of-pocket payments and loss of income among long-term breast cancer survivors in Germany: a multi-regional population-based study

Background and objectives: Cancer-related long-term effects on the utilization of healthcare services and the ability to work potentially cause long-term survivors to become vulnerable to financial burden. This study aims to examine the magnitude of OOP payments and income loss as well as potential sociodemographic and specifically morbidity-related risk factors among long-term breast cancer (BC) survivors in Germany.

Methods: In this study, we examine data from 2,654 long-term BC survivors in Germany, who were at least five years post-diagnosis, and who participated in the population-based study 'CAnCEr Survivorship – A multi-Regional' (CAESAR). BC related OOP payments and income loss among long-term BC survivors occurring within the 12 months prior to the survey were analyzed. Two-part regression models were performed to identify socio-demographic and morbidity-related risk factors of OOP payments and of income loss.

Results: OOP payments were incurred by 51.9% of survivors with a total mean spending of €566 for the last 12 months (median = €250). Per year, survivors spent on average 4.3% of their household income on OOP payments. Income loss is present among 9.6% of survivors, that averaged €5,463 within the last 12 months (median = €2,500). On average, survivors experienced a decline in their household income of 18.8% per year. Considering all statistically significant risk factors ($p \leq 0.05$), the highest OOP payments were observed in survivors belonging to the groups aged 65 to 79 years at the time of diagnosis, with education of 10 to 11 years, living in Rhineland-Palatinate, in (early-) retirement, with cancer stage III, more than ten years post BC diagnosis, with at least one comorbidity and using rehabilitation services. The largest income loss was observed among those belonging to the groups aged 50 to 59 years at the time of diagnosis, in (early-) retirement, with cancer stage II, five to seven years post BC diagnosis, with at least one comorbidity and treatment with chemotherapy, comparing the statistically significant risk factors ($p \leq 0.05$).

Conclusions: Although in relatively low prevalence, financial burden exists among BC survivors in Germany. The amount of income loss outweighs OOP payments, but the occurrence is less common. For some survivors, OOP payments and income loss can be considerably high despite having comprehensive healthcare and social security systems.