

M. Seweryn², J. Augustyńska¹, K. Skóra¹ and M. Budasz-Świdarska³
¹EconMed Europe, Krakow, Poland ²Andrzej Frycz Modrzewski Krakow University, Krakow, Poland ³Roche, Warsaw, Poland

OBJECTIVES

According to International Labour Organization (ILO) estimations, unpaid care and domestic work account for as much as 9% of global Gross Domestic Product (GDP). In some countries unpaid care and domestic work account even more than 40% of GDP (e.g. in Australia – 41.3%). Despite this, unpaid work is rarely incorporated into burden of disease analyses measuring social costs¹. The aim of this study was to demonstrate how the value of unpaid work influences the social costs on the example of lung cancer in Poland.

METHODS

Costs of unpaid work loss due to lung cancer was calculated taking into account lost of working hours due to lung cancer per patient, the minimum hourly wage and population of lung cancer patients in Poland in 2023. According to National Health Fund (NHF) data, the number of patients with lung cancer in Poland in 2023 was equal to 76,528². The exchange rate from the National Bank of Poland (NBP) for 2023, which was 4.54 PLN per 1 Euro, was used for cost calculations. The number of hours dedicated to unpaid work was estimated using data from the 2023 report on daily time use published by Statistics Poland³. Rate for unpaid work loss (number of unpaid work hours lost due to lung cancer vs numer of unpaid work hours in good health) was estimated based on a survey conducted with 120 lung cancer patients in Poland and was equal to 37%⁴. To calculate the monetary value of unpaid work, we used the minimum hourly wage in Poland for 2023, which was PLN 22.80 (€5.02)⁵. A correction factor (β) of 0.65, in line with the methodological guidelines adopted in Poland was applied, to reflect marginal labor productivity. Other indirect costs of lung cancer (sick leave, presenteeism, premature death, disability, informal care) were based on publication by Seweryn et al.⁴

CONCLUSION

The value of unpaid work plays a significant role in determining the social costs and burden of disease, as demonstrated in the case of lung cancer in Poland. The costs of unpaid work loss are at a similar level to costs of paid work loss. Therefore, this factor should not be overlooked in burden of disease analyses measuring social costs.

REFERENCES

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RESULTS

The cost of unpaid work loss due to lung cancer in Poland in 2023 amounted to €113.3 million, representing over 17.9% of the total indirect costs (€634.53 million). When considering only the indirect costs associated with the loss of unpaid or paid work performed by patients, the total amounted to €245.06 million. The value of paid work loss (resulting from sick leave and presenteeism) was €131.75 million. Consequently, the value of unpaid work loss was comparable to that of paid work loss, accounting for approximately 46.2% of the total indirect costs related to patients’ loss of productivity, whether in paid or unpaid work. Similar findings were reported when comparing the value of lost paid and unpaid work due to premature cancer deaths. Kong et al. estimated that 46.1% of the costs associated with premature cancer mortality were attributable to unpaid productivity losses, while 53.9% were related to paid productivity losses⁶. An even greater proportion of unpaid work in the total costs of premature deaths was observed by Ortega-Ortega et al, in which were reported that 49.4% of these costs resulted from unpaid work loss, and 50.6% were associated with paid work loss⁷.

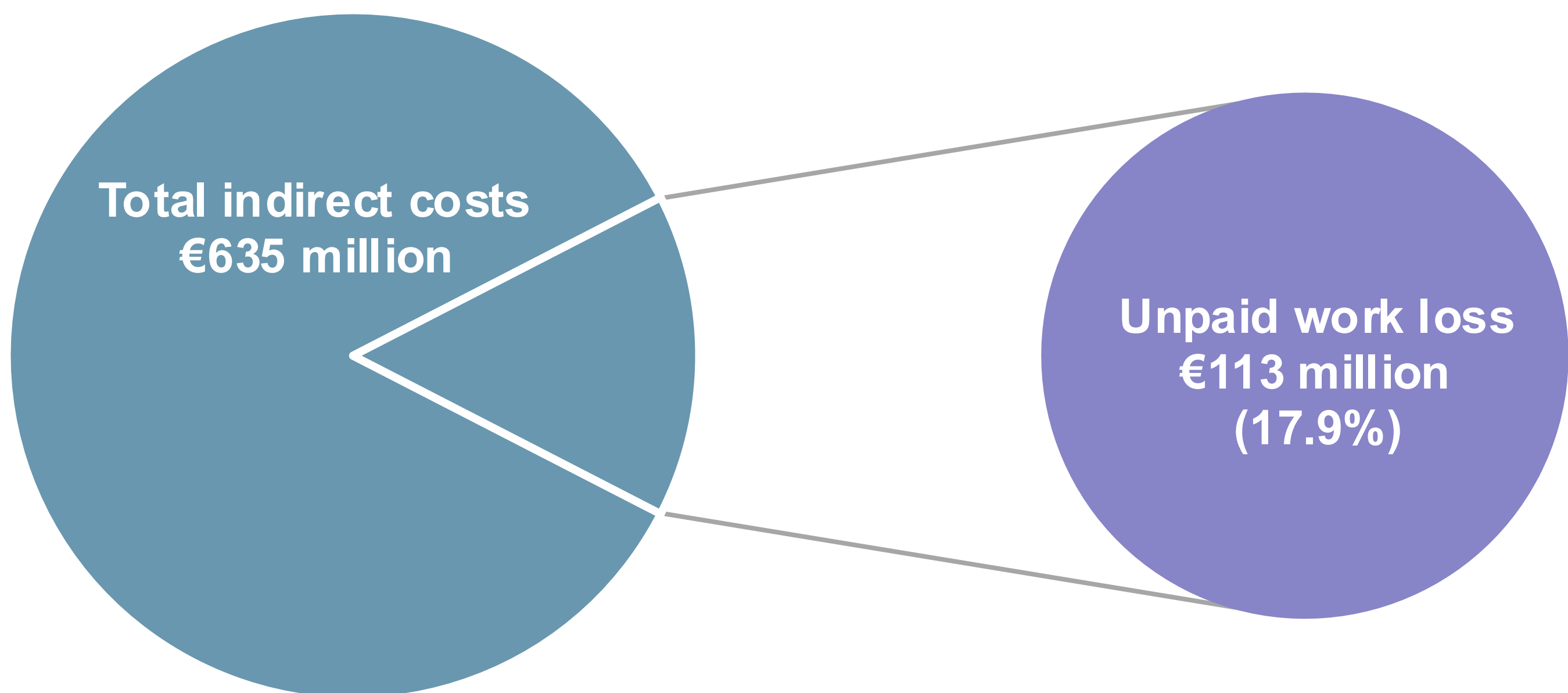


Figure 1. Share of costs of unpaid work in total indirect costs of lung cancer in 2023 in Poland

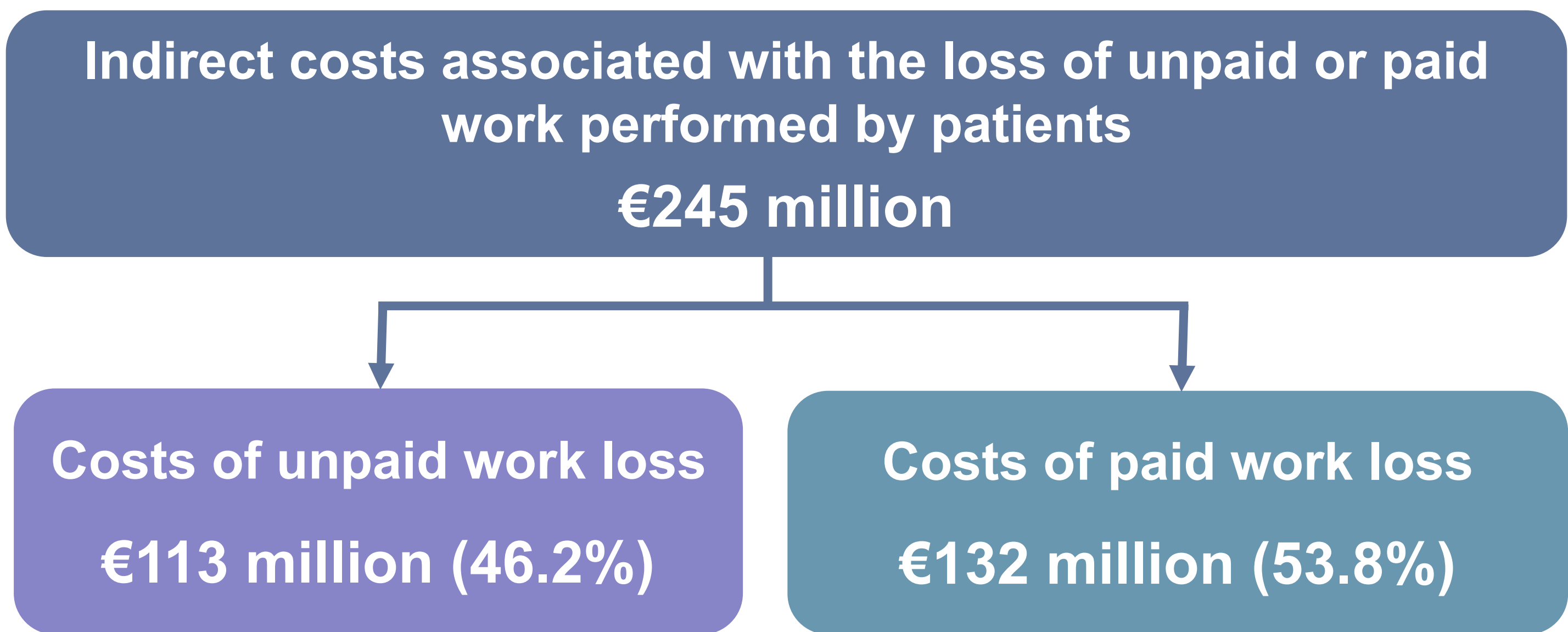


Figure 2. Indirect costs associated with the loss of unpaid or paid work performed by patients with lung cancer in 2023 in Poland

Publication	Share of unpaid work loss	Share of paid work loss
Seweryn et al. ⁴	46.2%	53.8%
Kong et al. ⁶	46.1%	53.9%
Ortega-Ortega et al. ⁷	49.4%	50.6%

Table 1. Comparison of results of share of unpaid and paid work loss due to cancer

FOR FURTHER INFORMATION: please contact Karolina Skóra, BD Vice President, k.skora@econmed.eu
EconMed Europe, Krakow, Poland, www.econmed.eu/en

