

# Cost-Effectiveness of Alpelisib Plus Fulvestrant for the Treatment of Postmenopausal Women with *PIK3CA* Mutant, HR+/HER2- Advanced Breast Cancer in Turkey

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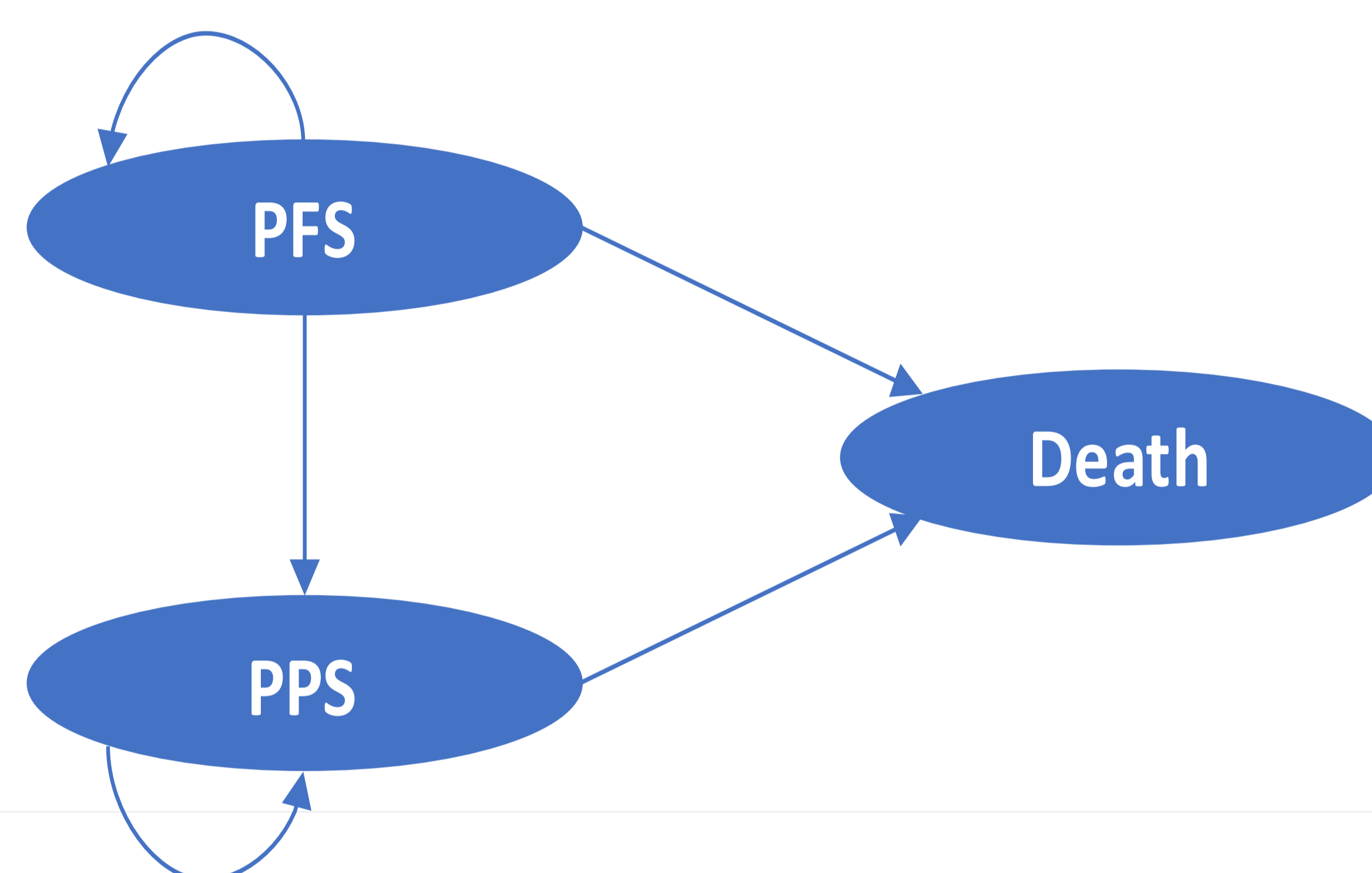
## OBJECTIVES

Breast cancer, with its high incidence among women (45.6/100.000), is a major public health problem in Turkey. Majority of breast cancer cases (74%) are positive for estrogen and progesterone (HR+) and negative for human epidermal growth factor – 2 (HER2-). *PIK3CA* mutations occur in 40% of HR+/HER2- breast cancers. The objective of this study is to assess the cost-effectiveness of alpelisib in combination with fulvestrant for the treatment of post-menopausal women with *PIK3CA* mutant HR+/HER2- advanced breast cancer after prior treatment with an aromatase inhibitor in Turkey.

## METHODOLOGY

The study was designed from the payer's perspective (SGK). A Markov model was developed. Comparators were ribociclib+fulvestrant, palbociclib+fulvestrant, fulvestrant, everolimus+exemestane and chemotherapy. Clinical effectiveness data for alpelisib+fulvestrant vs fulvestrant were obtained from the SOLAR-1 clinical trial. Indirect comparisons were made for other comparators. Only direct costs were included in the analysis. Cost of treatments, cost of adverse events, follow-up costs, cost of progression and cost of terminal care were covered. Expert views were used in the absence of published cost data.

### Markov Model



PFS: Progression Free Survival; PPS: Post-Progression Survival

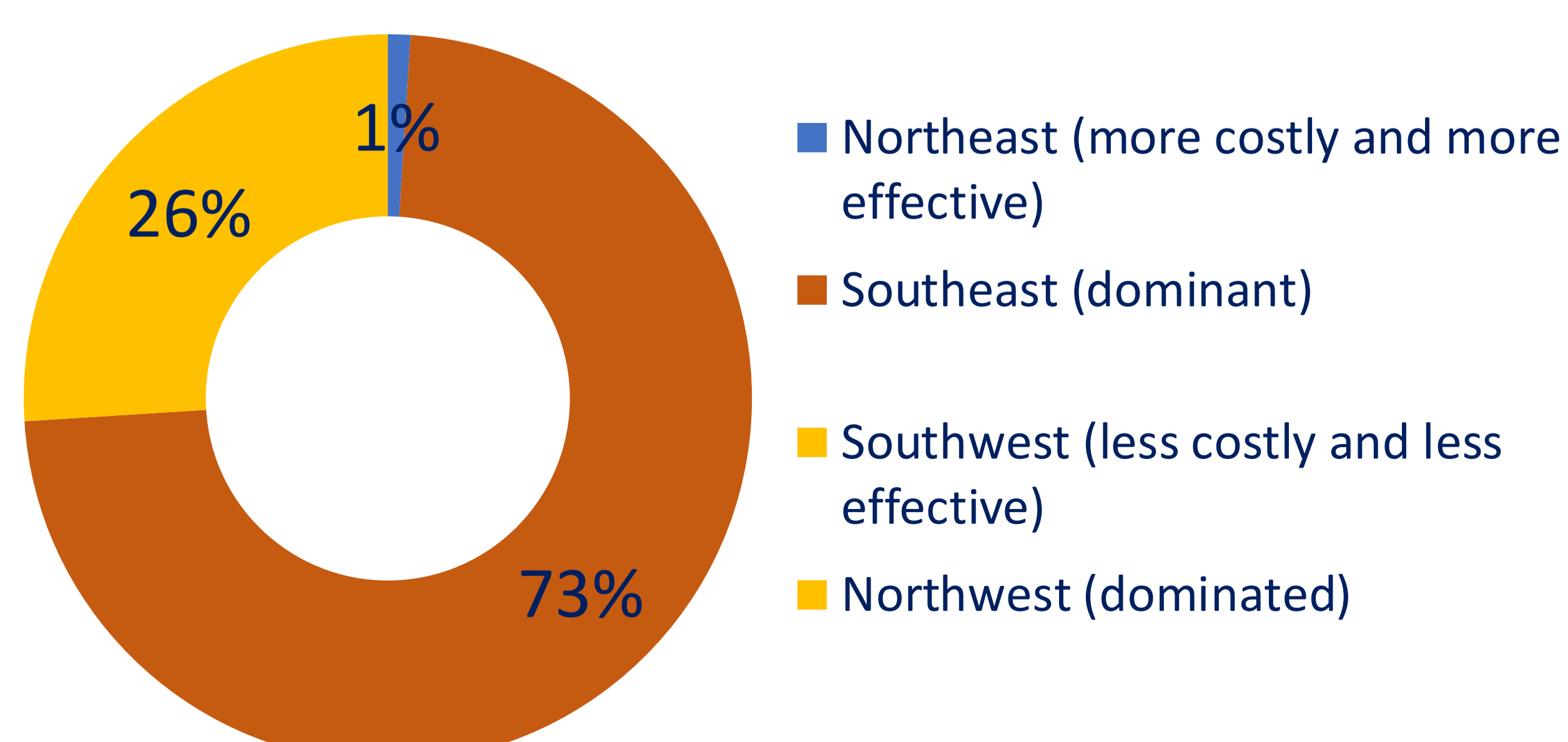
\*40-year time horizon and 28-day cycle length.

## RESULTS

Alpelisib+fulvestrant has dominated all other treatment options except the fulvestrant treatment. However, the ICER for this treatment was below the three times the GDP per capita of Turkey for 2021, in other words, the results were within the cost-effectiveness limits.

	Alpelisib + Fulvestrant	Ribociclib + Fulvestrant	Palbociclib + Fulvestrant	Fulvestrant	Everolimus + Exemestane	Chemotherapy
<b>Total</b>						
Cost (TRY)	325,298	8,220,963	4,499,347	103,228	1,625,421	745,929
Life Years	4.79	4.30	4.30	3.53	3.51	4.11
QALYs	3.41	3.05	3.05	2.50	2.45	2.79
<b>Difference</b>						
Cost (TRY)		-7,895,665	-4,174,049	222,070	-1,300,123	-420,621
Life Years		0.49	0.49	1.26	1.28	0.68
QALYs		0.36	0.36	0.91	0.95	0.62
<b>Incremental Cost Effectiveness Ratio (ICER)</b>						
ICER for Life Years		Dominant	Dominant	176,646	Dominant	Dominant
ICER for QALYs		Dominant	Dominant	245,026	Dominant	Dominant

### Probabilistic Sensitivity Analysis Results



## DISCUSSION

Alpelisib+fulvestrant treatment in post-menopausal women with *PIK3CA* mutant HR+/HER2- advanced breast cancer after prior treatment with an aromatase inhibitor is a cost-effective option in Turkey. The sensitivity analyses results have shown that the results were robust