



All India Institute of Medical Sciences, Jodhpur

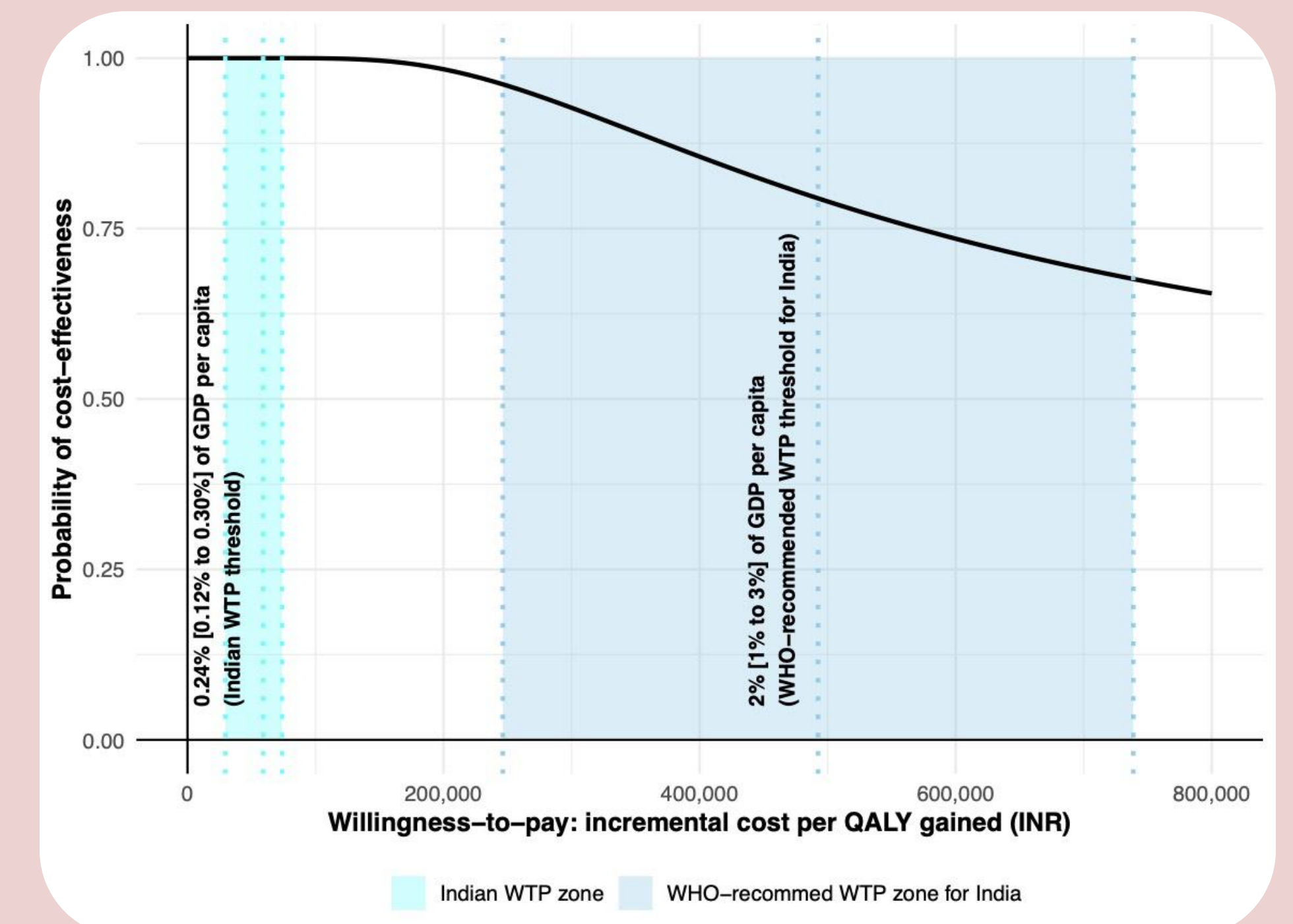
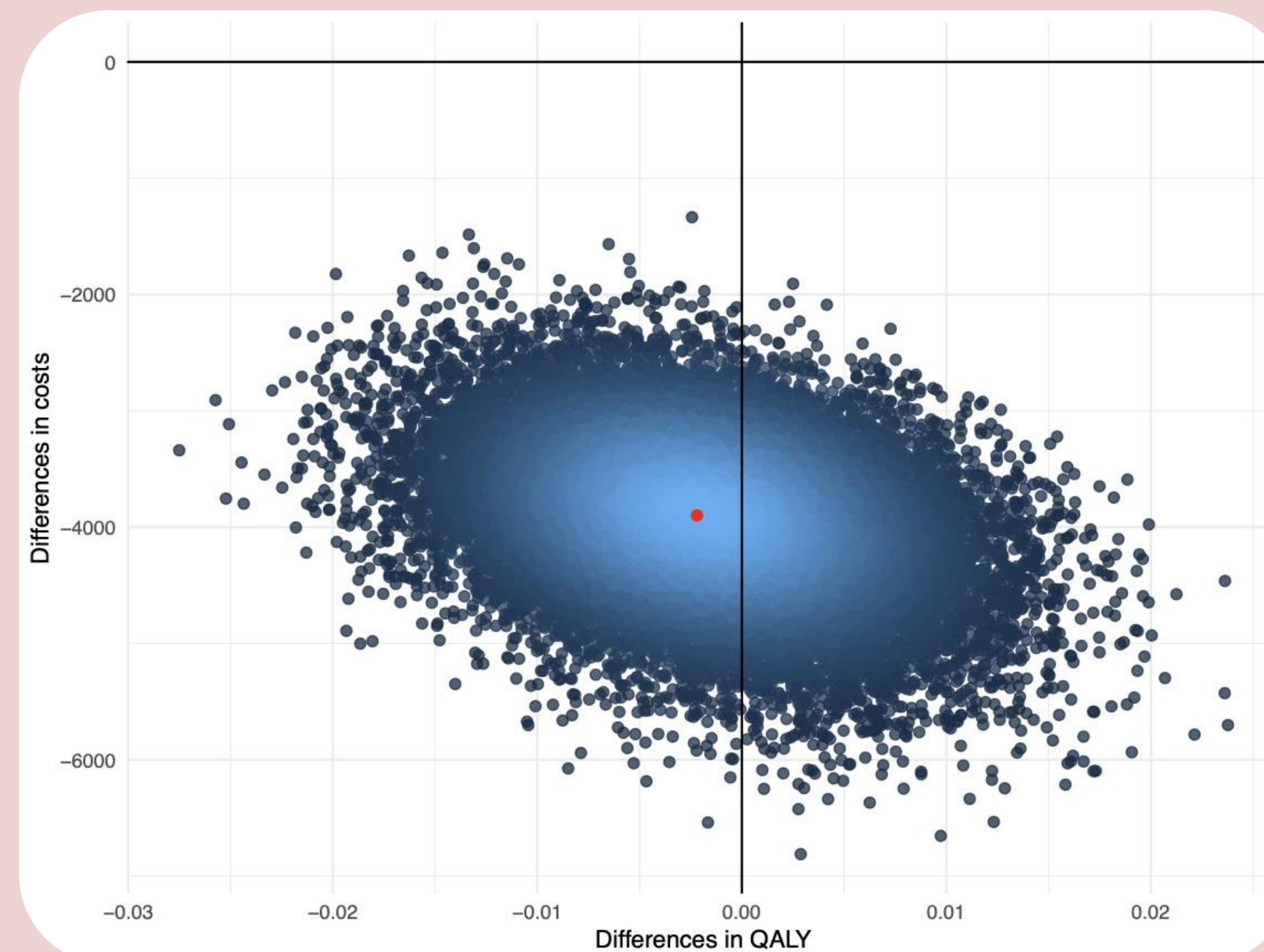
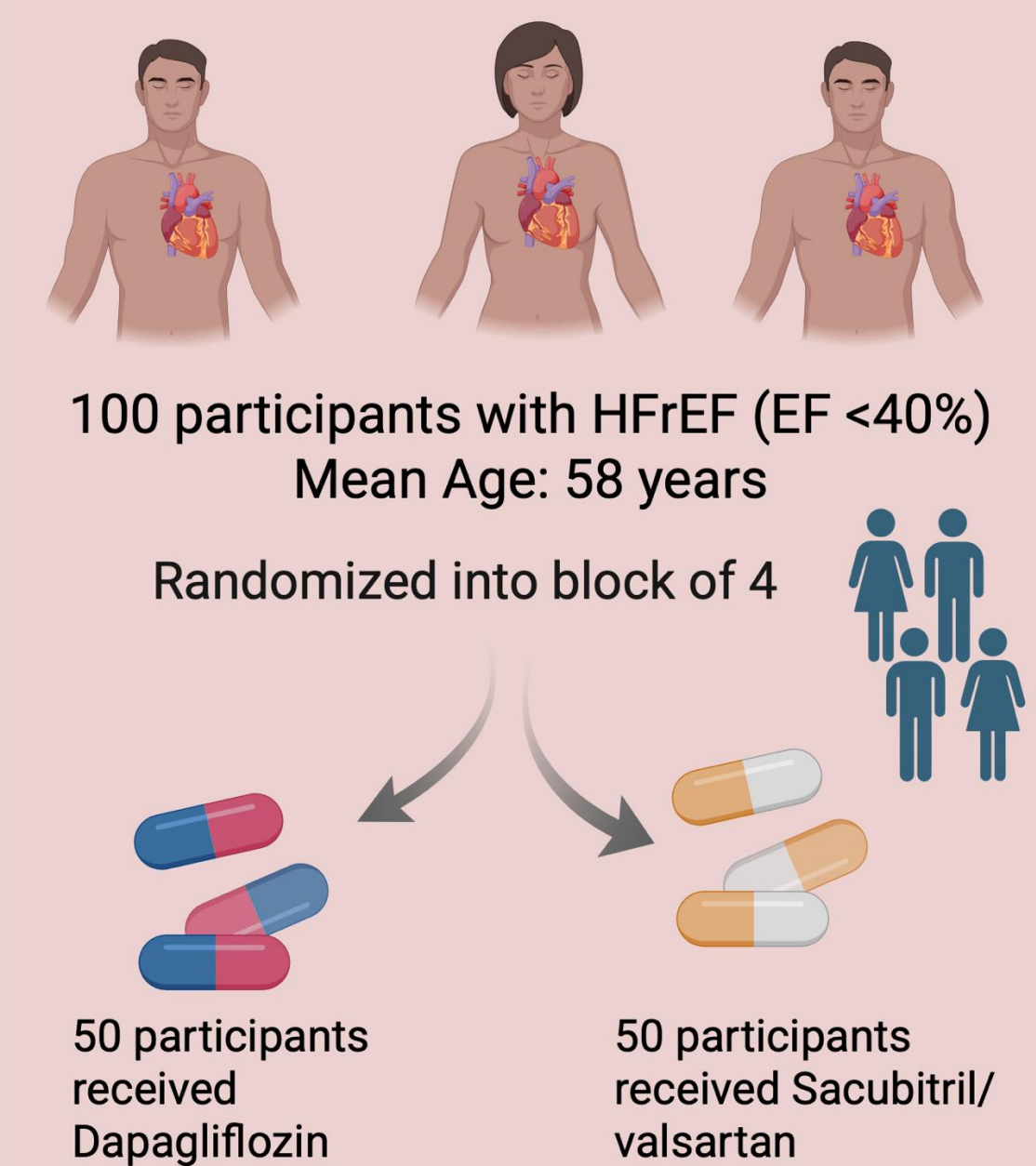
Cost-utility in Dapagliflozin vErsus SacubiTril-valsartaN therapY in Heart Failure with reduced Ejection Fraction [DESTINY-HF]

A pragmatic randomised controlled trial-based economic evaluation

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Two first-line therapies in Heart Failure with reduced Ejection Fraction (HFrEF) have never been compared head-on. Hence, we conducted a pragmatic RCT comparing Dapagliflozin (an SGLT2 inhibitor) versus Sacubitril/Valsartan (ARNI) in HFrEF.

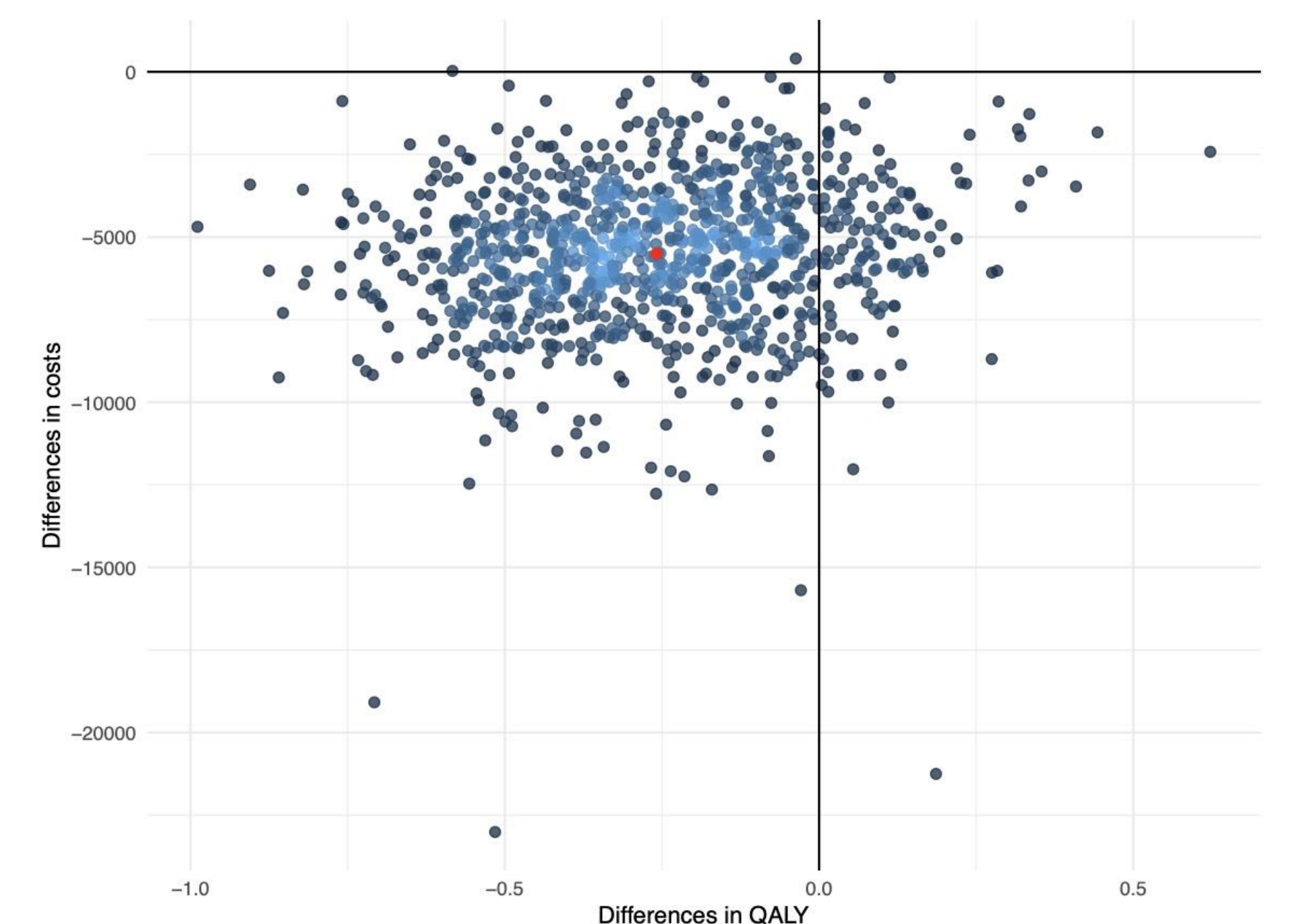
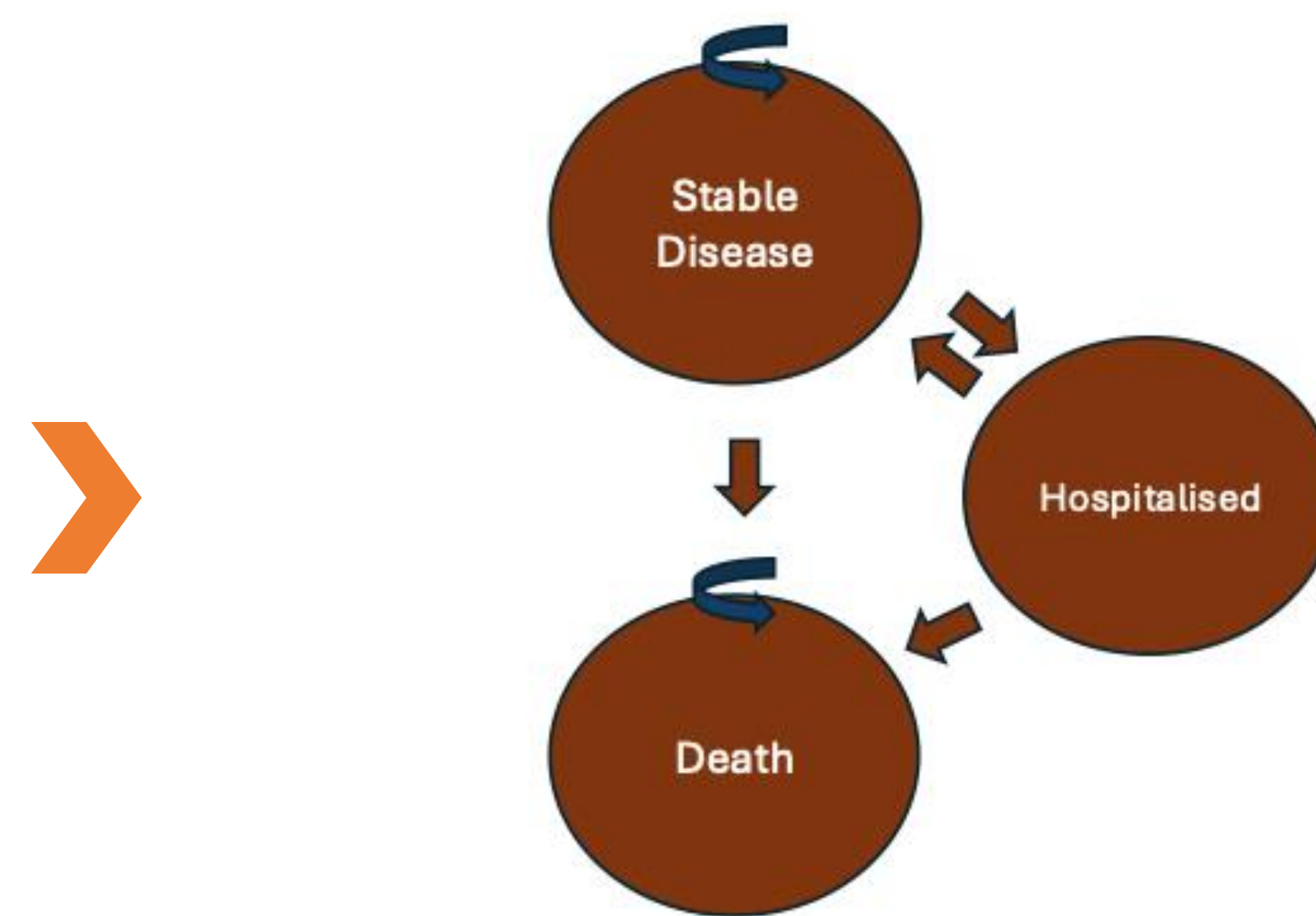
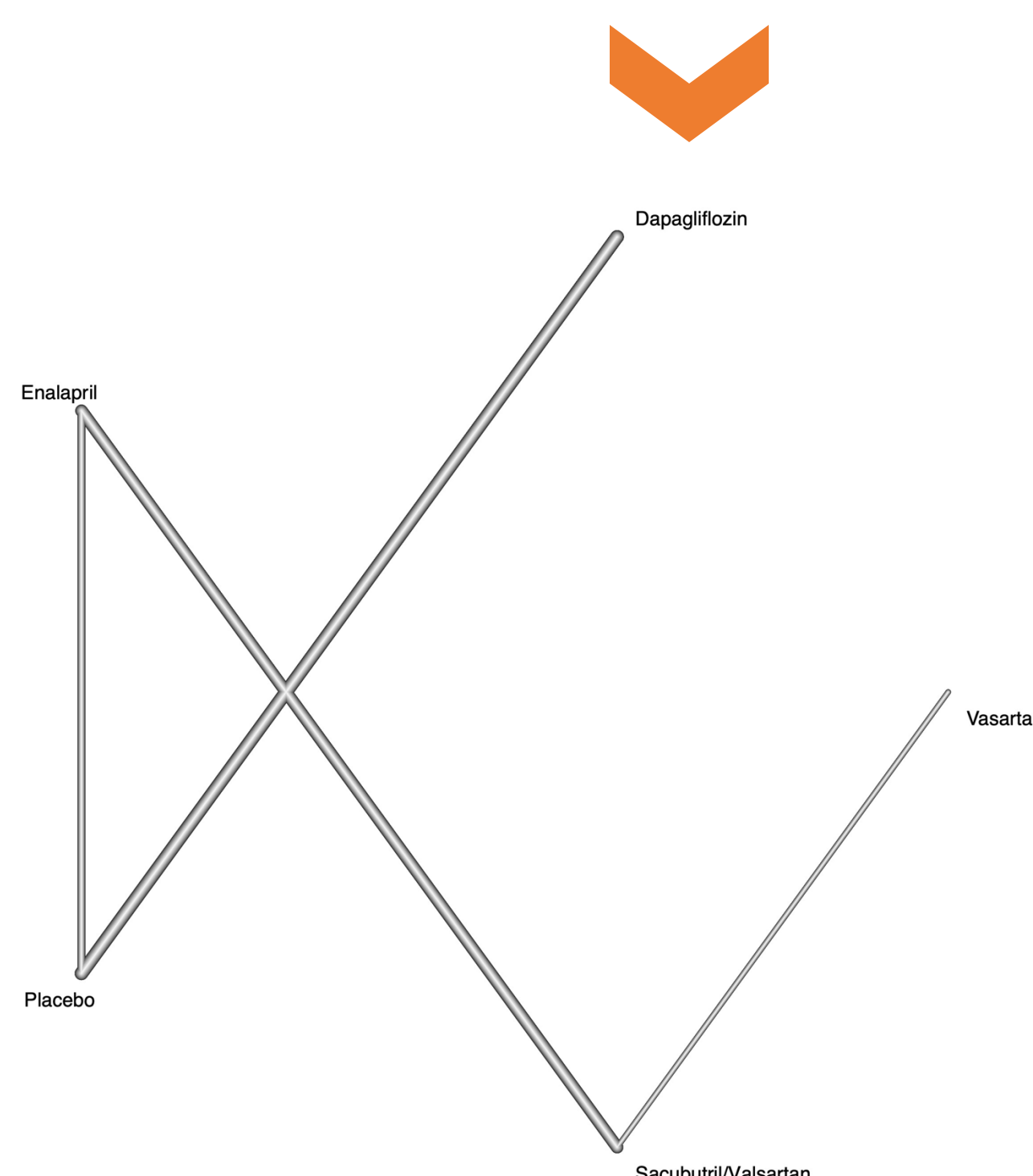
Single center, open label randomized control trial



We studied cost-effectiveness model, incorporating both
a) within-trial pharmacoeconomic evaluation [alongside RCT]
b) Beyond-trial [projections to a lifetime horizon]

For one quality-adjusted life year,
the extra expenditure is ₹1,779,458.75,
equivalent to \$87,550.24 (2024, PPP-adjusted).

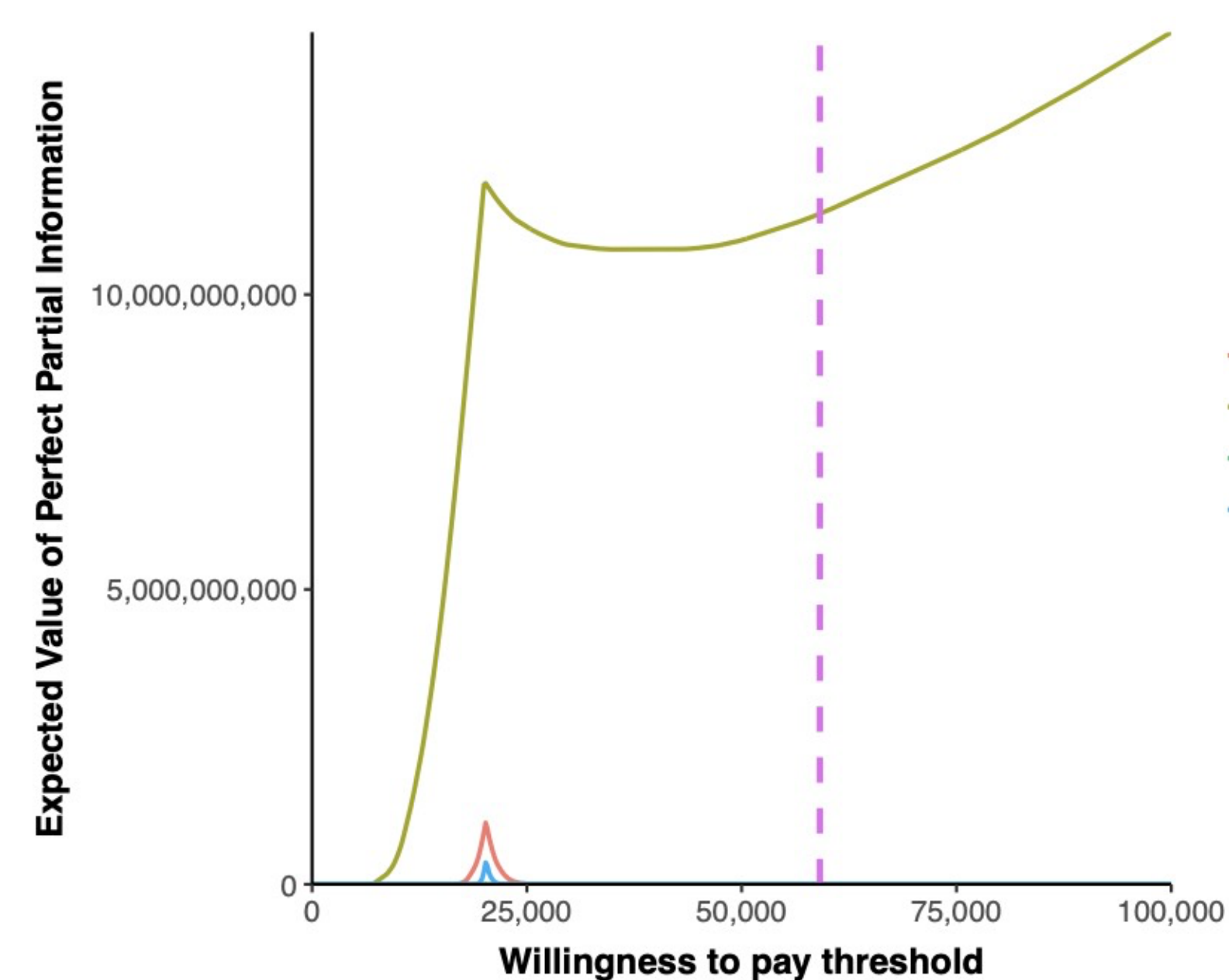
Dapagliflozin is a cost-effective alternative to Sacubitril Valsartan
[the image shows >99% probability of cost-effectiveness at a
willingness-to-pay threshold based on the Indian context]



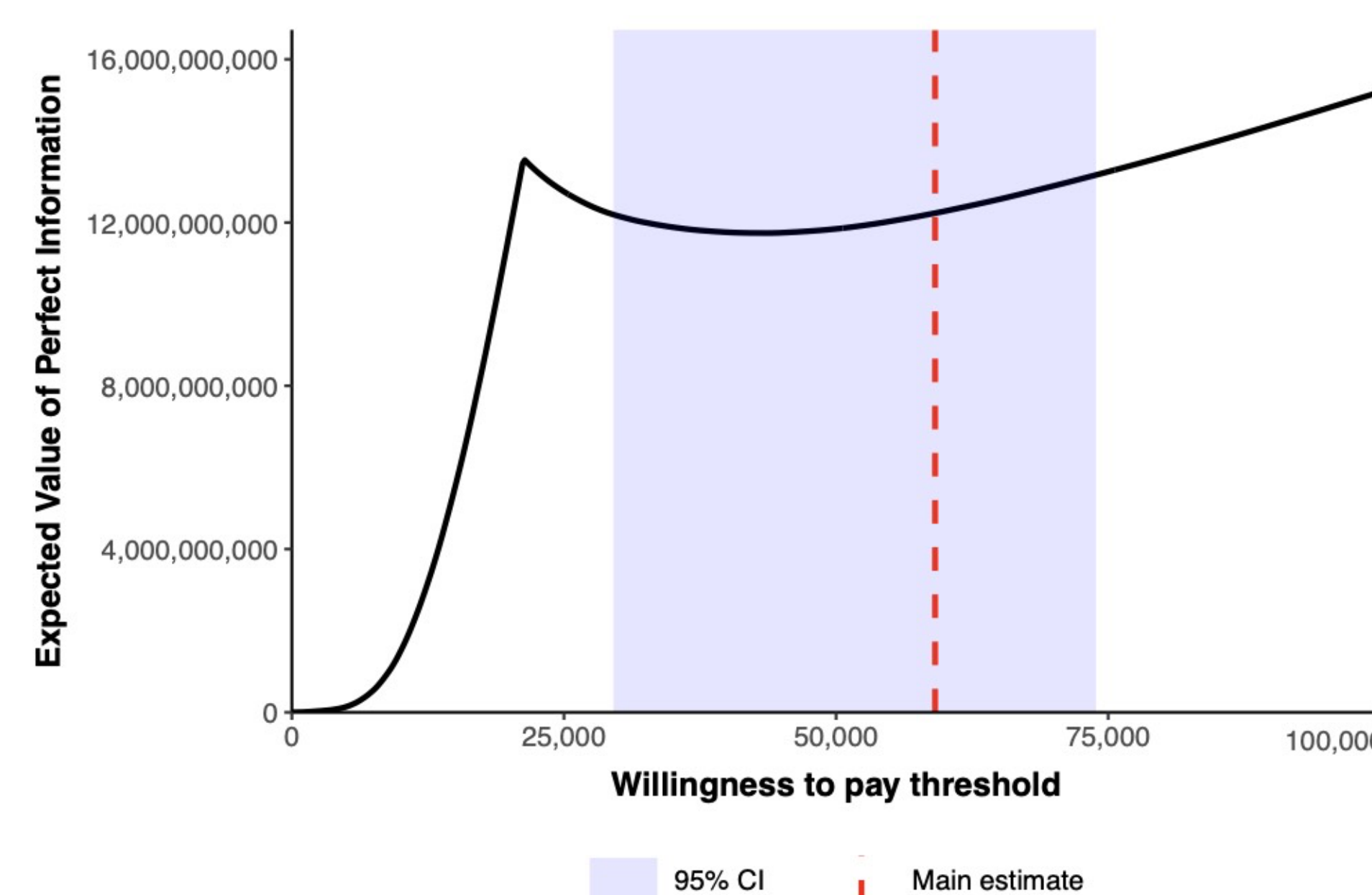
A Network Meta-Analysis to incorporate both direct and indirect evidence comparing the two drugs. This was also accompanied by a structured search for other economic model parameters.

Over the lifetime horizon, a Markov model was used to predict cost-effectiveness over the long term.

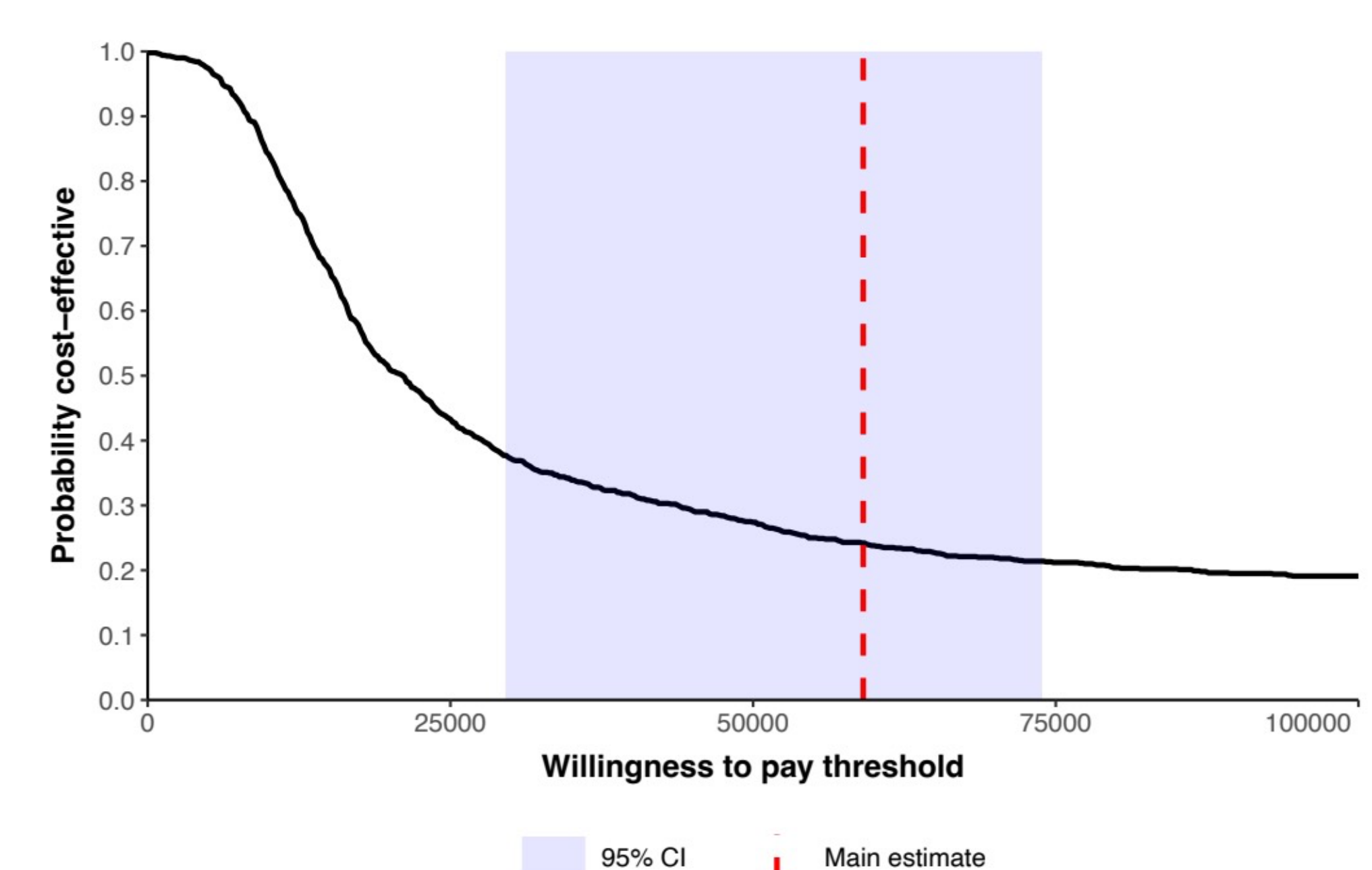
For one quality-adjusted life year,
the extra expenditure is ₹21,281.76,
equivalent to \$1047.07 (2024, PPP-adjusted).



What should future research focus on?
Contributions of different parameters to overall decision uncertainty.



Value of conducting additional research on this topic.
Adjusted for the the disease burden and the current uncertainty.
Can be interpreted in the light of research cost.



Sacubitril Valsartan is cost-effective to Dapagliflozin over the long-term [the image shows >70% probability of cost-effectiveness at a willingness-to-pay threshold based on the Indian context]

