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Budget Impact of Intravenous Eptinezumab in the Prevention of Chronic Migraine Patients in United Arab Emirates

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Introduction:

Our research aimed to assess the potential budget changes upon introducing a new preventive treatment, Eptinezumab, for chronic migraine patients in the United Arab Emirates (UAE), considering the societal perspective.

Methodology:

- A budget impact model was developed to assess the economic effects of introducing eptinezumab to the existing treatment regimen for patients with chronic migraine who have not responded to two or more preventive therapies over a three-year period.
- Eptinezumab gradually replaced galcanezumab, erenumab, oral topiramate, oral propranolol, oral venlafaxine, and onabotulinumtoxin A in chronic migraine patients.
- The model calculated the total costs per patient per month (PPPM) and per member per month (PMPM) associated with chronic migraine preventive treatments including:

- Costs for drug acquisition
- Costs for managing adverse effects
- Costs for monitoring treatment
- Costs for handling migraine attacks
- Costs accounting for productivity loss

A deterministic sensitivity analyses were performed.

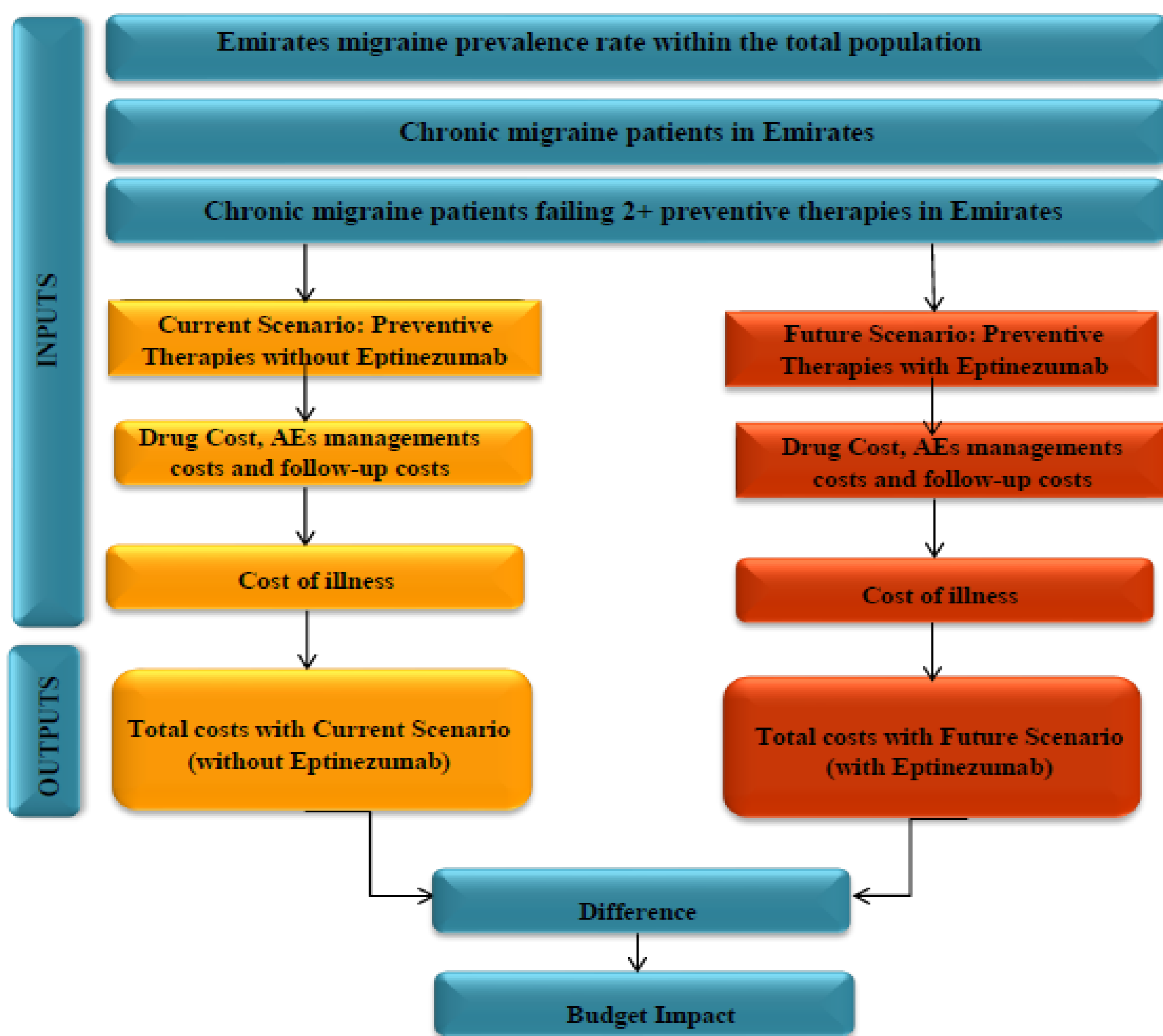
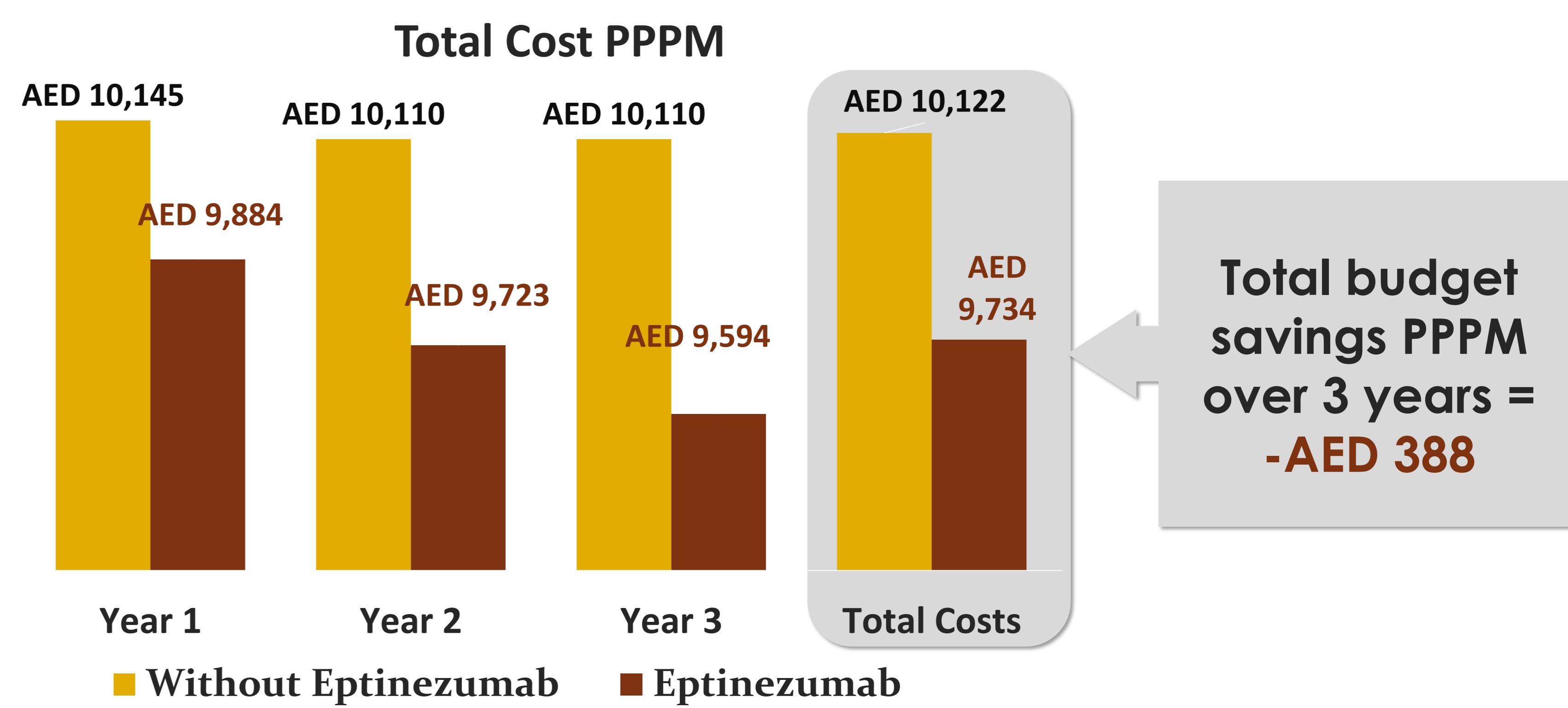
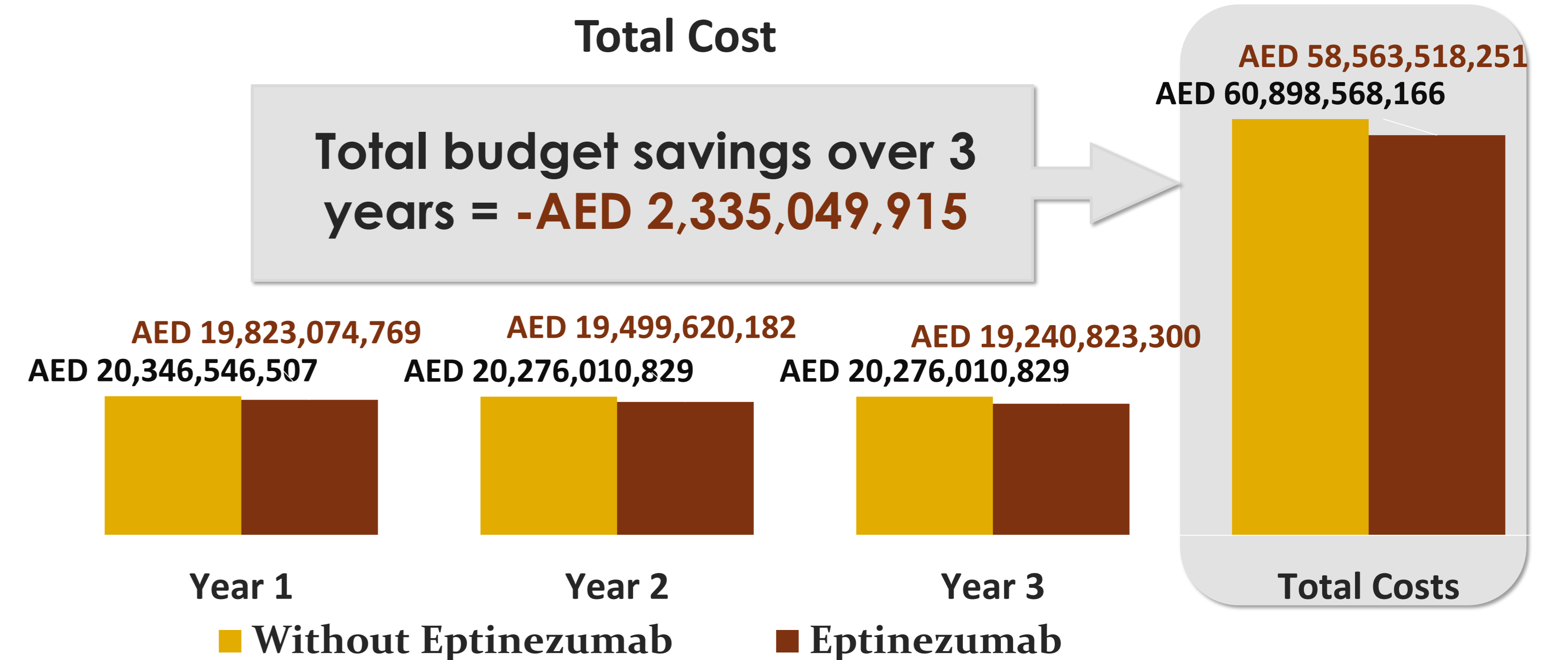
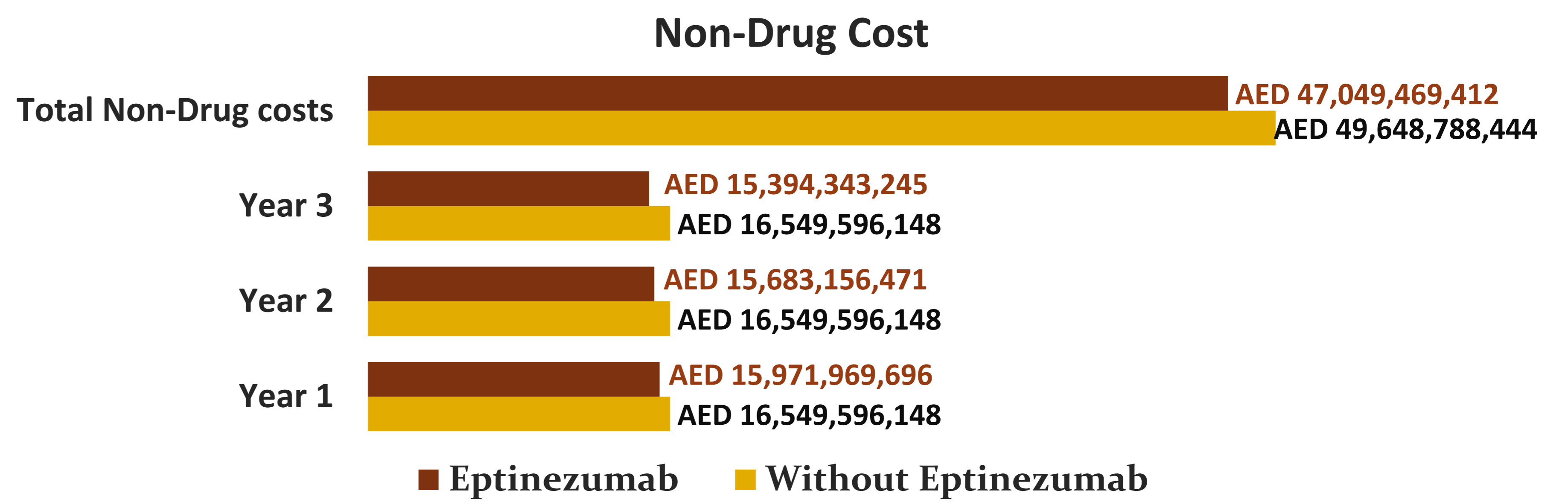
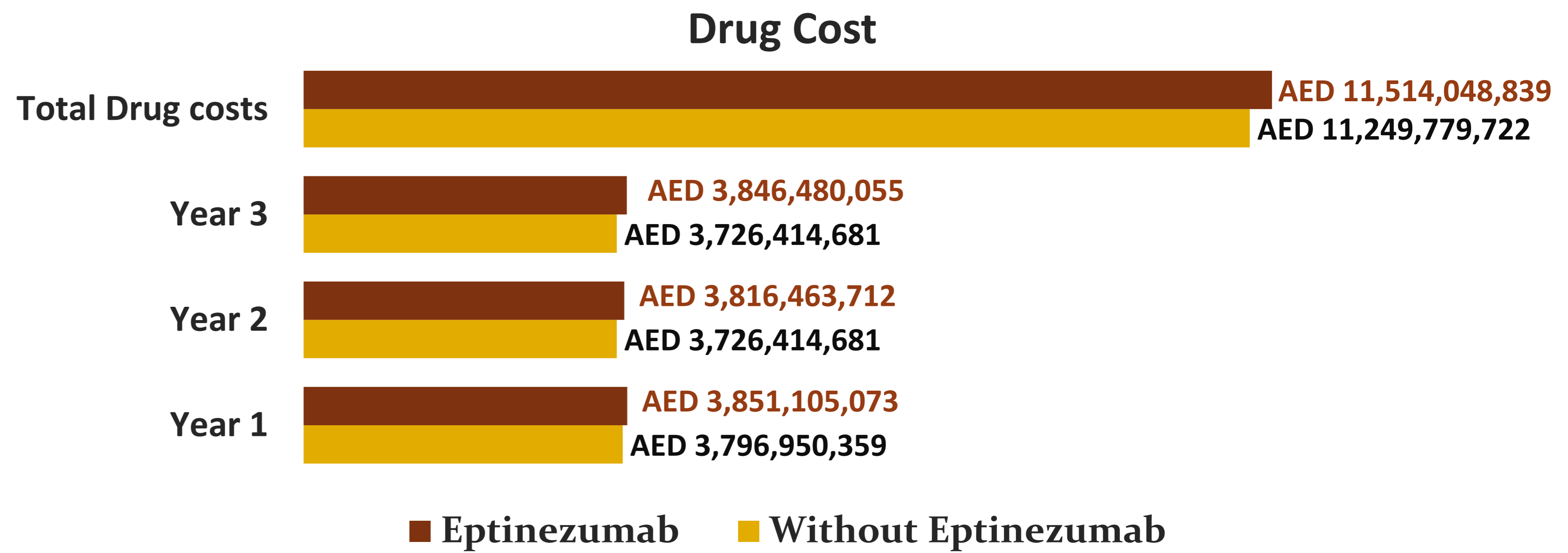


Figure 1: The Budget impact model

Results:

- The base case results for our target population showed that the future scenario resulted in total PPPM drug costs of AED1,913 and the total PPPM non-drug costs were AED7,820.
- The total PPPM drug costs of the current scenario (without eptinezumab) were AED1,869 while the total PPPM non-drug costs were AED8,252.
- The PPPM total drug costs, PPPM total non-drug costs saving and PPPM total budget saving over 3 years were AED43.92, -AED432.03 and -AED 388.10, respectively.
- The total budget saving for the Emirati target population were -AED2,335,049,915 over 3 years.



Conclusion:

- Introducing eptinezumab into the treatment plan for chronic migraine patients in UAE who have not responded to two or more preventive therapies over a three-year period led to substantial budget savings.
- Eptinezumab resulted in cost savings in non-drug medical expenses due to reduced frequency of migraine attacks, fewer adverse events, and lower productivity loss.
- Despite the upfront drug costs of eptinezumab, these were offset by the savings from reduced migraine management and productivity loss.

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