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Budget Impact Analysis of Souvenaid for the Management of Alzheimer's Disease

In Middle East and North Africa region*

*Kingdom of Saudi Arabia, United Arab Emirates, and Egypt

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INTRODUCTION

- **Alzheimer's disease (AD) is the leading cause of dementia,** accounting for 60% to 70% of cases worldwide.[1]
- **The dementia burden is rising rapidly in the Middle East and North Africa (MENA) region,** driven by population aging, increased life expectancy, and growing cardiometabolic risk factors.[2]
- Since AD pathology begins years before symptoms appear, **early intervention during prodromal and mild stages is critical to delay disease progression.**[3]
- **Souvenaid is a disease-targeted nutritional intervention** designed to support synapse formation and function through a specific combination of nutrients.[4,5]
- Clinical evidence suggests that **Souvenaid may help slow cognitive and functional decline** in individuals with prodromal and mild AD.[6]

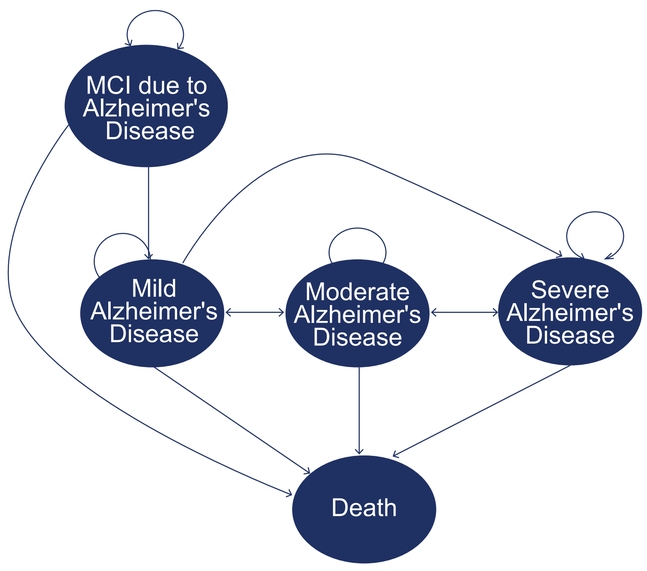
OBJECTIVE

To evaluate the **budget impact of introducing Souvenaid as an add-on medical nutritional supplement** to standard pharmacological treatment in patients with mild cognitive impairment (MCI) due to AD and mild AD across public and private healthcare payer perspectives in Kingdom of Saudi Arabia (KSA), the United Arab Emirates (UAE), and Egypt.

METHOD

Model Framework (PICOTS)

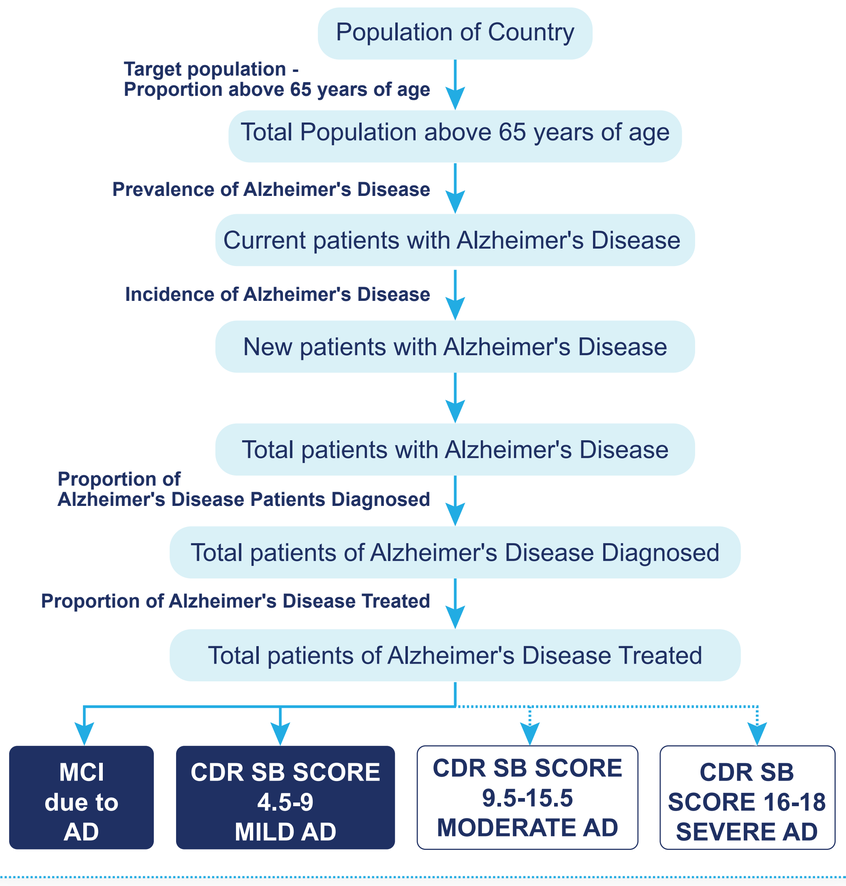
Attribute	Description
Population	Alzheimer's disease (AD) patients: MCI due to AD and Mild AD cohorts
Intervention	Souvenaid, as an add-on medical nutritional supplement
Comparators	Donepezil, Galantamine, Rivastigmine
Time horizon	5 years (2026 to 2030)
Perspective	Provider (5 market views: KSA Public, KSA Private, UAE Public, UAE Private, Egypt Public)
Analytical tool	Microsoft® Excel®
Key Inputs	Market share, clinical efficacy, and direct costs
Key Outcomes	Total costs and budget impact



Baseline Patient Profile

- Mean Age **65 Years**
- Gender (M:F) **50 : 50**
- Population growth — KSA and Egypt: **1.5% annually**; UAE: **3.5% annually**
- Mean Weight **70 kg**
- Baseline MMSE **21**

Population Flow



AD = Alzheimer's Disease; CDR SB = Clinical Dementia Rating – Sun of Boxes; MCI = Mild Cognitive Impairment.

RESULTS

Souvenaid combination share of total market, range across perspectives by year
Combination includes: Donepezil and Souvenaid , Galantamine and Souvenaid, Rivastigmine and Souvenaid.

2026	2027	2028	2029	2030
6-8%	12-15%	21-24%	30-36%	39-45%

Souvenaid combination cost outcomes across perspectives (5-year cumulative)

Cost Component	KSA Public (SAR)	KSA Private (SAR)	UAE Public (AED)	UAE Private (AED)	Egypt Public (EGP)
Drug Cost Increase	+38.84M	+8.00M	+2.95M	+23.27M	+38.5M
Health State Savings	-3.81M	-1.73M	-4.69M	-1.68M	-1.57M
Complication Savings	-51.08M	-26.62M	-2.61M	-31.84M	-37.82M
Adverse Event Savings	-0.22M	-0.14M	-0.02M	-0.34M	-0.83M

Budget Impact

Souvenaid is budget-saving in all five markets and payer perspectives modeled
In every model, incremental drug-acquisition investment is outweighed by reductions in health-state, complication and adverse-event costs.

KSA Public Sector	KSA Private Sector	UAE Public Sector	UAE Private Sector	Egypt Public Account
Net Savings –SAR 16.3M over 5 years	**Net Savings** –SAR 20.5M over 5 years	**Net Savings** –AED 4.4M over 5 years	**Net Savings** –AED 10.6M over 5 years	**Net Savings** –EGP 1.7M over 5 years
Drug cost: +SAR 38.8M 17,852 treated patients	**Drug cost: +SAR 8.0M** 9,082 treated patients	**Drug cost: +AED 2.9M** 517 treated patients	**Drug cost: +AED 23.3M** 3,267 treated patients	**Drug cost: +EGP 38.5M** 2,663 treated patients

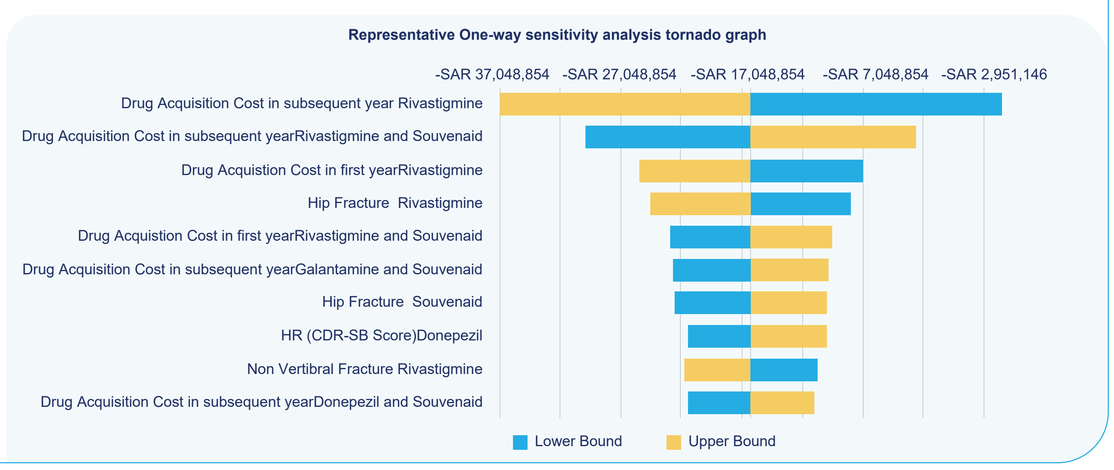
Societal Impact

The use of Souvenaid as an add-on medical nutritional supplement in Alzheimer's disease has the potential to generate meaningful societal benefits beyond clinical outcomes.

- Addresses the specific nutritional requirements associated with Alzheimer's disease through a targeted nutrient formulation.
- Supports brain health and may help maintain cognitive and functional abilities when used alongside standard care.
- May help patients remain independent for longer, preserving activities of daily living.
- Has the potential to reduce caregiver burden and improve quality of life for patients and their families.
- May delay the need for more intensive healthcare or long-term care services.
- Could contribute to reducing the overall societal and economic burden of Alzheimer's disease.

Sensitivity Analysis

Across all perspectives, the budget impact is primarily driven by drug acquisition costs, particularly subsequent-year rivastigmine, while clinical parameters such as fracture risk and treatment efficacy contribute comparatively smaller financial variability.



CONCLUSIONS

- **Net Budget Savings:** Total AD-care costs decline in all 5 markets — from EGP 1.7M in Egypt to SAR 20.5M in KSA Private.
- **Lower Complication & AE Costs:** Complication costs fall 8–46% and adverse-event costs decline in every market, offsetting drug cost.
- **Modest, Predictable Drug Cost Rise:** Drug acquisition costs increase just 2–11% over 5 years — manageable for budget planning.

Across every market and perspective evaluated, Souvenaid strengthens Alzheimer's care value — reducing both economic and humanistic burden without straining healthcare budgets.

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