

Population Impact Model of Faricimab and Aflibercept 8 mg Among US Patients With Diabetic Macular Edema and Neovascular Age-Related Macular Degeneration

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Study and Product Disclosures
► Faricimab is approved for the treatment of nAMD, DME, and retinal vein occlusion in multiple countries worldwide and is not currently approved for use outside these indications.
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A considerable economic advantage was observed with faricimab treatment compared with aflibercept 8 mg for nAMD and DME across all US states

Background

- Anti-vascular endothelial growth factor (VEGF) therapies are standard treatments for neovascular age-related macular degeneration (nAMD) and diabetic macular edema (DME)^{1,2}; however, these require frequent injections and ongoing management, imposing a high burden on patients, caregivers, and healthcare systems.^{3,4}
- Aflibercept is a VEGF inhibitor, and recent studies have demonstrated its efficacy and safety at higher doses (8 mg vs the approved 2 mg) and extended treatment intervals.^{1,5}
- Faricimab is the first approved intraocular bispecific antibody that binds and neutralizes both VEGF-A and angiopoietin-2, stabilizing retinal vasculature and reducing inflammation; studies have demonstrated the efficacy and safety of faricimab at extended treatment intervals.^{6,7}
- **This study compared costs associated with faricimab and aflibercept 8-mg treatments for nAMD and DME populations in the US, incorporating state-specific prevalence to estimate population-level societal costs.**

Results

Figure 1. Faricimab and Aflibercept 8-mg Direct Costs: (A) per Patient and (B) per US Population

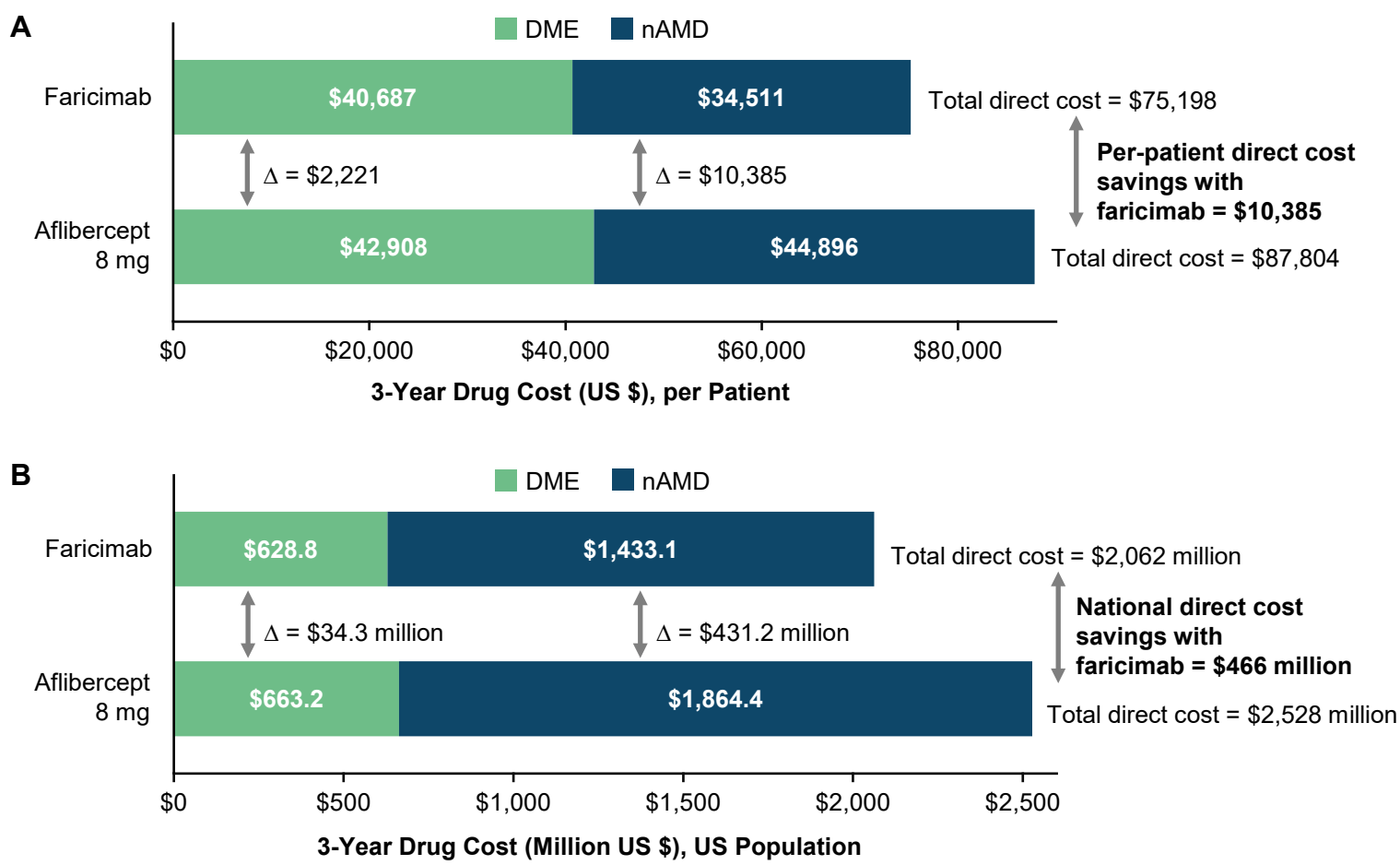
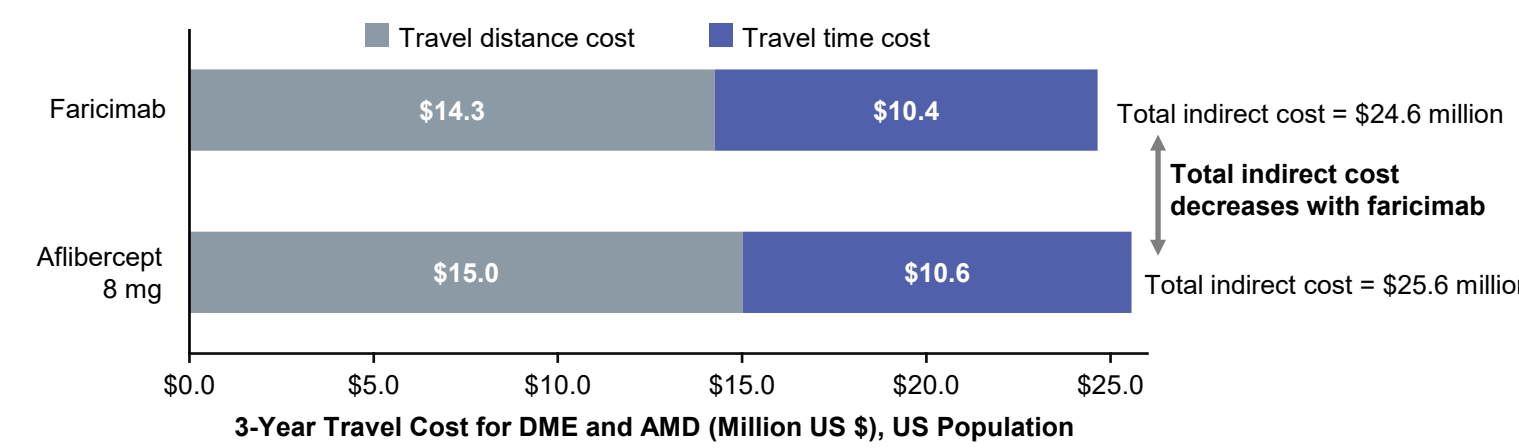


Figure 2. Faricimab and Aflibercept 8-mg Total Travel Costs for DME and nAMD per US Population



- Over a 3-year time horizon, estimated per-patient direct costs were lower with faricimab than aflibercept 8 mg for DME (\$2,221) and nAMD (\$10,385) (Figure 1A).
- Direct costs savings with faricimab of \$34.3M in DME and \$431.2 million in nAMD vs aflibercept 8 mg were estimated nationally (Figure 1B); combining both indications, direct cost savings with faricimab were \$466 million.
- Total travel costs for the US population were slightly lower with faricimab (\$24.6 million) vs aflibercept 8 mg (\$25.6 million) (Figure 2).

Methods

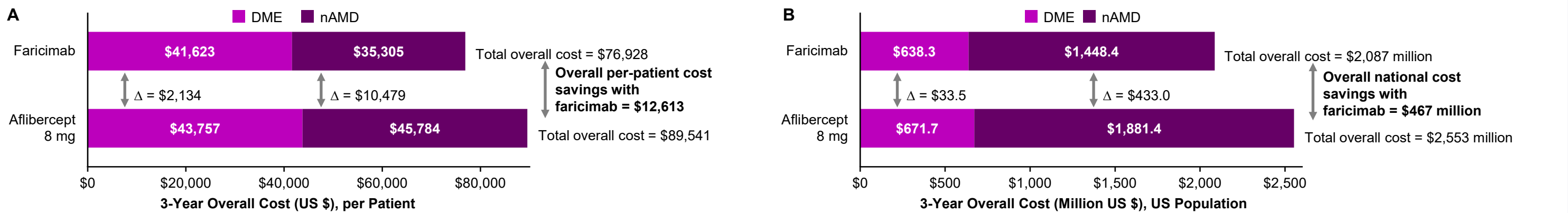
- This analysis compared direct costs (relating to drug acquisition, administration, and adverse event management) and indirect costs (travel costs and productivity loss) for patients treated with faricimab vs aflibercept 8 mg and their caregivers over a 3-year period.
- Drug costs were estimated using wholesale acquisition cost per unit (Table 1).
- Weighted dosing for faricimab and aflibercept was calculated based on patients' injection frequency from phase 3 clinical trial data extrapolated over 3 years (faricimab, every 4 weeks [Q4W]–Q16W) for DME and Q8W–Q16W for nAMD; aflibercept 8 mg, Q8W–Q16W for both DME and nAMD).^{2,8-10}
- Travel data (Adelphi nAMD Real World Disease Specific Programme) estimated an average travel distance of 12.3 miles per visit and travel time of 32.54 minutes by car.
- Productivity loss from travel time was calculated with a wage of \$35.50 per hour applied to the working caregiver population, which was estimated from caregiver unemployment rates of 50.0% for DME and 76.9% for nAMD.¹¹
- State-level prevalence (per 100,000 people) was estimated for the year 2022 (Institute for Health Metrics and Evaluation at the University of Washington. Used with permission).

Table 1: Direct Cost^a Inputs

	Faricimab	Aflibercept
Unit dose	6 mg	8 mg
WAC (per unit)	\$2,233.80	\$2,625.00
Weighted anti-VEGF doses (over 3 years)		
DME	17.0	15.4
nAMD	14.4	16.2
Drug administration and visits costs		
Intravitreal injection (CPT: 67028)	\$113.52	
Optical coherence tomography (CPT: 92134)	\$40.67	
Total administration cost	\$154.19	

^aCosts are presented in 2024 US \$.
CPT, Current Procedural Terminology; DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration; VEGF, vascular endothelial growth factor; WAC, wholesale acquisition cost.

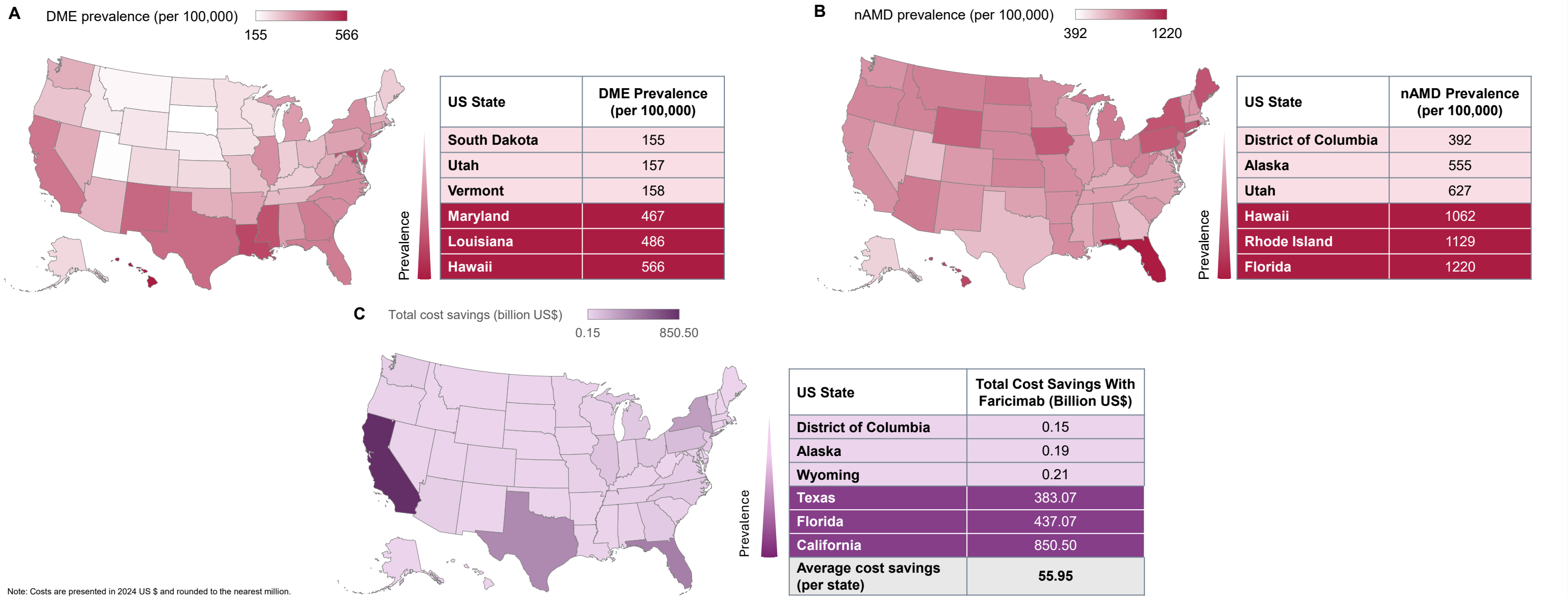
Figure 3. Faricimab and Aflibercept 8-mg Overall Costs: (A) per Patient and (B) per US Population



Note: Costs are presented in 2024 US \$. National costs are rounded to the nearest million US \$; some values do not sum precisely due to rounding.
DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration.

- Combining both indications, overall per-patient cost savings with faricimab were \$12,613 (Figure 3A); overall national cost savings were \$467 million (Figure 3B).

Figure 4: Prevalence of (A) DME and (B) nAMD Across the US and (C) Total State-Specific Savings With Faricimab vs Aflibercept 8 mg (DME and nAMD Combined)



Note: Costs are presented in 2024 US \$ and rounded to the nearest million.
DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration.

- Prevalence rates of DME and nAMD varied across US states (Figures 4A and 4B); combining both indications, total cost savings with faricimab (vs aflibercept 8 mg) ranged from \$0.15 billion (District of Columbia) to \$850.50 billion (California), leading to per state average savings of \$55.95 billion (Figure 4C).

Conclusion

- Compared with aflibercept 8 mg, faricimab generated considerable cost savings for DME and nAMD, driven by lower overall drug costs and lower injection frequency.
- These results demonstrate the economic advantage of faricimab across the US regardless of the varying prevalence rates of DME and nAMD by state.