

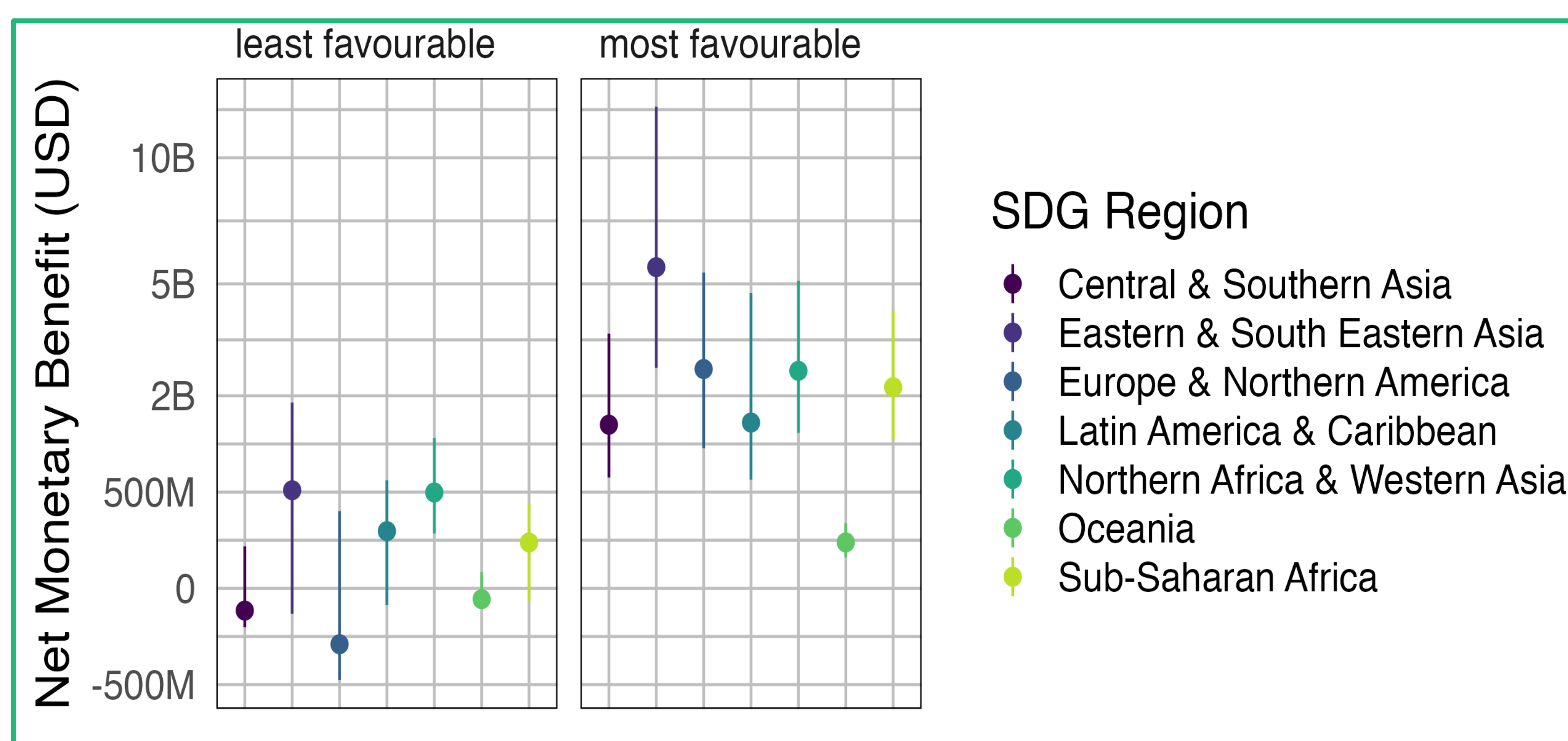
Globally, an effective maternal GBS vaccine is likely to be cost-effective with an annual Net Monetary Benefit between \$1.1 billion and \$17 billion

Global cost-effectiveness of potential maternal immunisation against Group B Streptococcus.

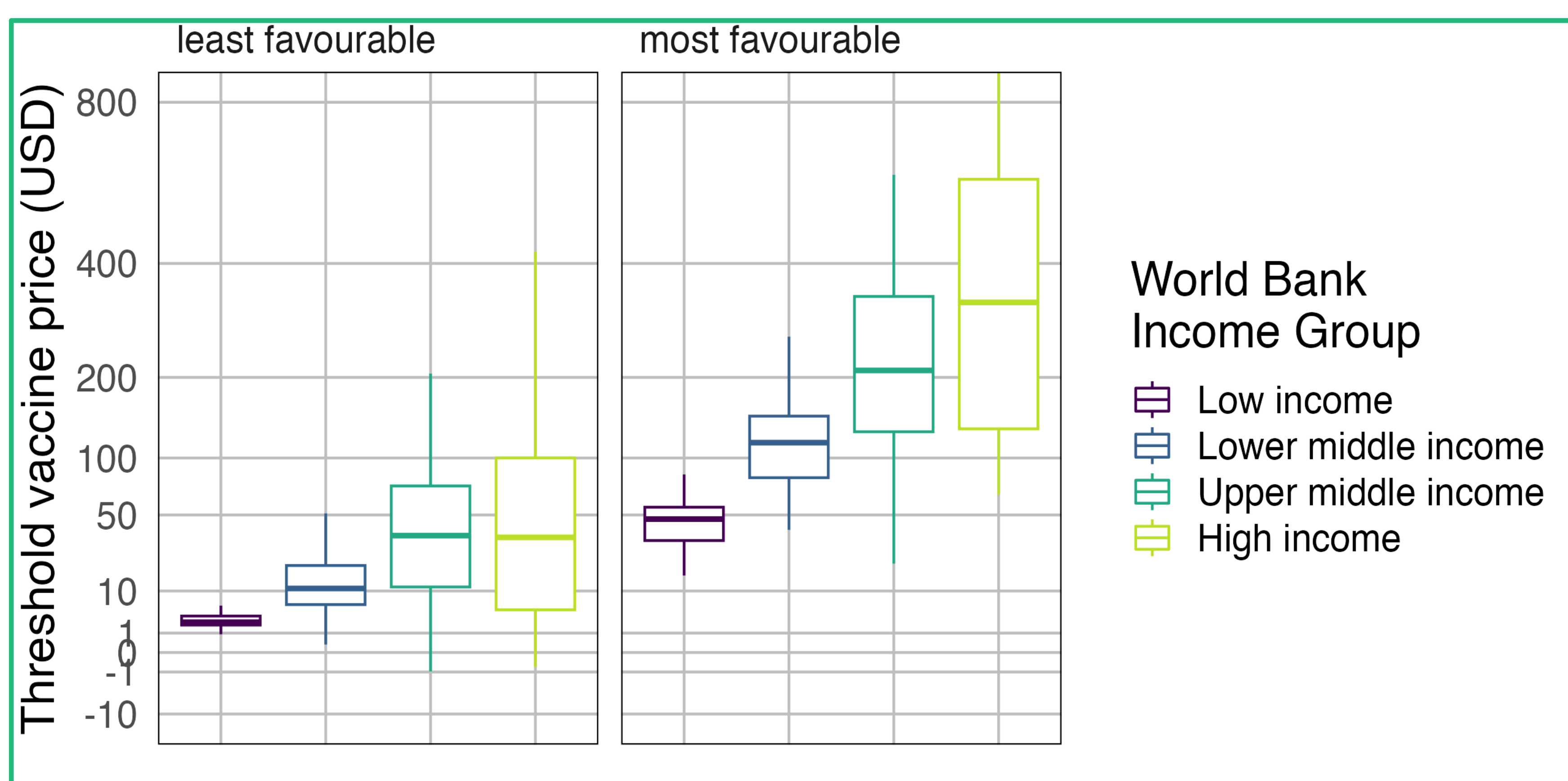
Simon R Procter, Bronner Goncalves, Prama Paul, Jaya Chandna, Farah Seedat, Artemis Koukounari, Raymond Hutubessy, Caroline Trotter, Joy E Lawn, Mark Jit

Background: Group B Streptococcus (GBS) is a bacterium that can cause serious infections in newborns, including sepsis and meningitis, and may lead to death or long-term disability. GBS is also associated with stillbirth and preterm birth. Maternal vaccines against GBS are currently being trialled, and in this study we assessed their potential health impact and cost-effectiveness to inform the **WHO Full Value of Vaccines Assessment**.

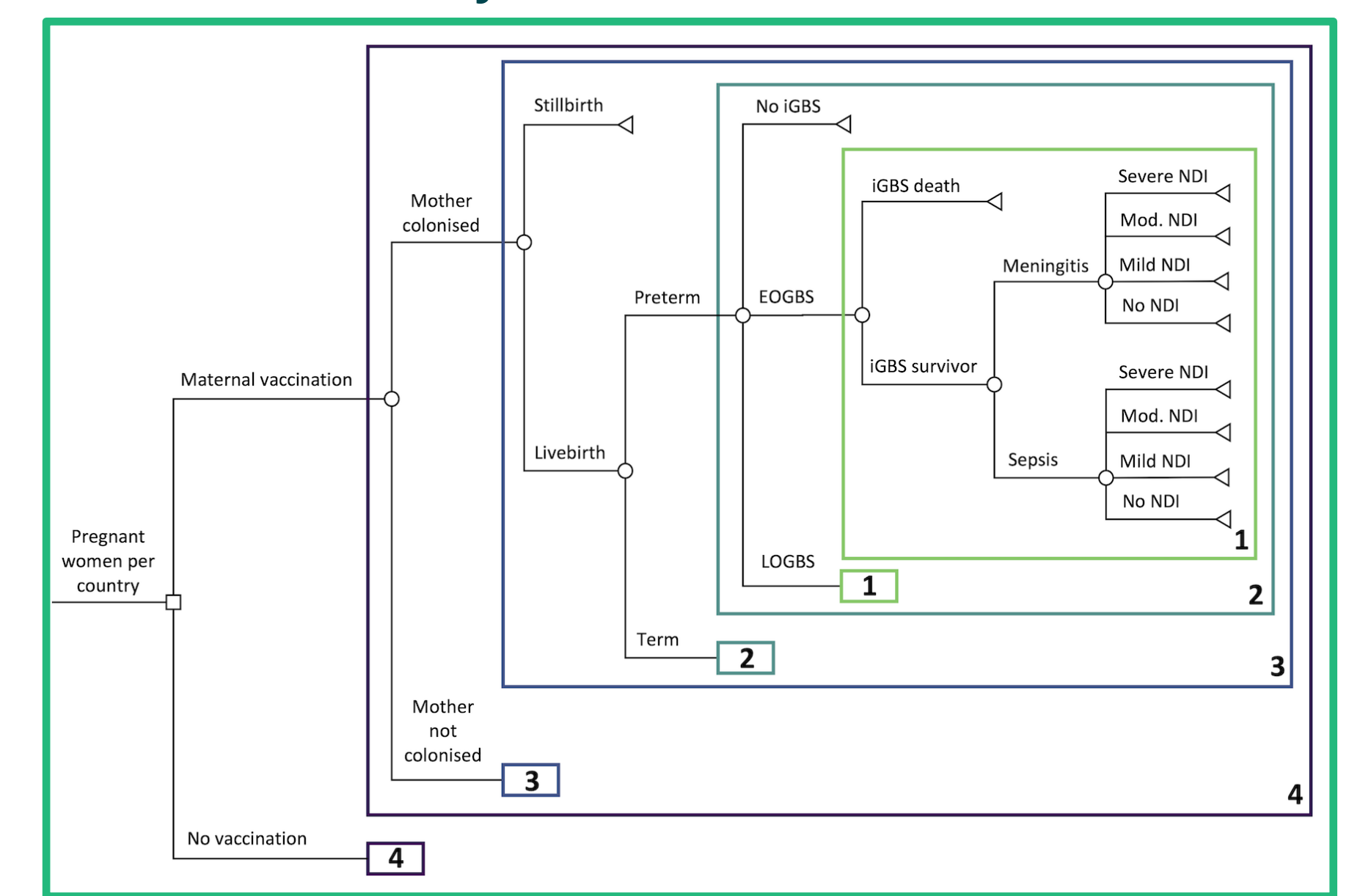
Key finding: Under most favourable assumptions the vaccine was cost-effective in all regions, but net monetary benefit was negative in some regions under least favourable scenarios.



Key finding: Vaccination was less likely to be cost-effective amongst poorer countries within each region, but an appropriately priced vaccine could still be cost-effective in almost all countries even under less favourable assumptions. Tiered pricing may be needed to ensure equitable access.



Model: We used a decision tree model to simulate the impact of a maternal GBS vaccine in a cohort of 140 million pregnant women across 183 countries for the year 2020.



Vaccine assumptions: base case assumptions were based on the WHO preferred product characteristics:

- 1-dose vaccine
- 80% efficacy against early- and late-onset GBS, and against GBS-related stillbirth

We estimated net monetary benefit using alternative normative assumptions:

Parameter	Least favourable Assumptions	Most favourable Assumptions
Discount rate	3% for costs and benefits	3% for costs; 0% for benefits
Inclusion of stillbirth QALYs	Not included	Included
Cost-effectiveness threshold	Based on empirical opportunity cost	1 x GDP per capita

Country-level results:

