



Delivery costs for co-delivery immunization campaigns in Nigeria and Sierra Leone

BACKGROUND

- In June 2019, an integrated measles-rubella (MR) campaign was implemented in **Sierra Leone**. **Oral polio vaccines (OPV)** were co-delivered nationwide; in addition, **nutritional interventions** (vitamin A supplements and albendazole deworming tablets) were co-delivered in half of the country's districts.
- Yellow fever (YF) campaigns** were conducted in **Nigeria** in 2019-2020 in Anambra, Katsina and Rivers states. In Anambra, YF was co-delivered with **meningitis A (MenA)** vaccines.
- Post-campaign **coverage** surveys found MR coverage to be 93% in Sierra Leone, and YF coverage to be between 76% and 83% across the states in Nigeria.

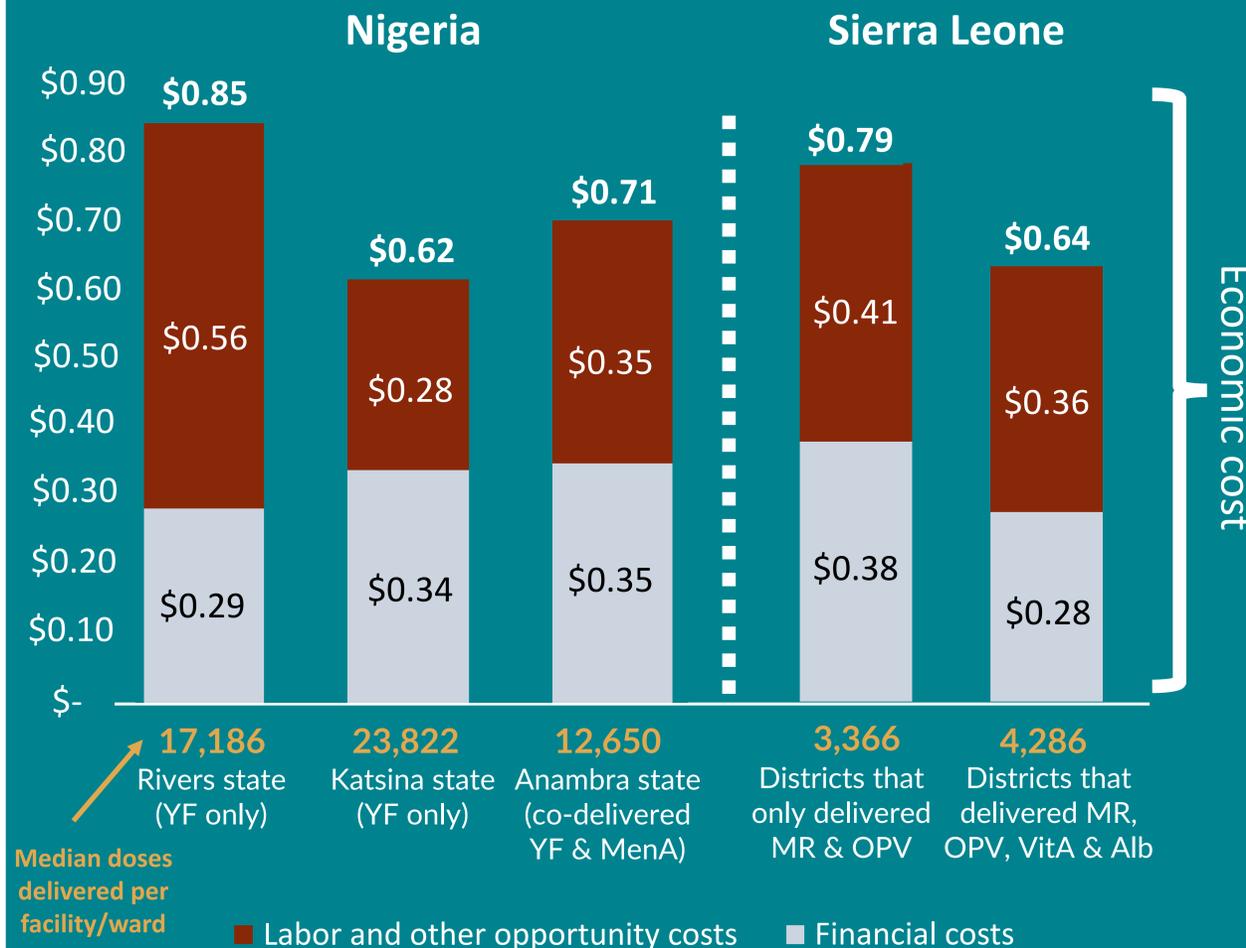
METHODS

- Ingredients-based, retrospective costing studies.**
- Costs incurred by **MOH and implementing partners at all levels**, from implementation to national/federal.
- Sample size:** 6 districts and 30 health facilities in Sierra Leone; 10 LGAs, 28 wards and 78 health facilities in Nigeria.

DELIVERY COST DRIVERS

- The **financial delivery costs** (exclusive of vaccine costs) ranged from **\$0.28 to \$0.38 per dose**.
- Across all campaigns, **service delivery** accounted for the highest proportion of costs among campaign activities, followed by **social mobilization** and **training** activities.
- The main cost drivers were **per diems** and allowances, **transport costs** and **vaccine injection and safety supplies**.

Cost per dose, exclusive of vaccine costs



Co-delivery campaigns may be associated with financial efficiencies due to the greater delivery volume, but they may also require greater use of existing resources such as labor. Further research on the cost of different types of co-delivery campaigns is needed.

Results from Sierra Leone are shown in 2019 US\$ and results from Nigeria in 2020 US\$

CO-DELIVERY IN SIERRA LEONE

- Findings from Sierra Leone suggest **financial cost efficiencies** in the districts where more interventions were co-delivered.
- However, although labor costs were lower per dose delivered in co-delivery districts, the effect was small, and delivering more doses and interventions led to higher health workforce costs. This implies a tradeoff between financial efficiencies and the use of existing resources.

CO-DELIVERY IN NIGERIA

- In Nigeria, the **data did not show an effect of co-delivery** on the financial or economic cost of delivery.
- The financial unit cost of delivery was lower in states that delivered only one antigen (Katsina and Rivers) compared with the co-delivery state (Anambra). However, these two states delivered more vaccine doses overall, which suggests that **delivery costs are driven by the overall delivery volume, rather than the number of different vaccines** administered during campaign.
- Other differences between states as well as the way the different states were funded may have played a role.

CONCLUSION

- While findings in Sierra Leone suggest **financial cost efficiencies from co-delivery**, results from Nigeria showed that overall delivery volume may have a greater effect on the cost of delivery.
- Although labor costs per dose delivered may reduce with volume, overall **labor costs** would still be greater for high-volume campaigns, while labor supply is usually fixed. Therefore, **existing capacity should be carefully considered** when planning co-delivery campaigns.
- Further research is needed** to study the cost of different types of co-delivery campaigns, as well as linkages between cost, quality, financing, health system capacity, and the delivery of other essential health services.