

## Economics of adult vaccination webinar – additional Q&A responses

**1. What were the cost drivers for DRC financial and economic costs for delivering COVID-19 vaccines?**

**Reply:** The financial costs were primarily driven by per diem and allowances, while paid labor was the main cost driver of the economic cost per dose. More information can be found in the DRC country report here: <https://immunizationeconomics.org/c19-vaccine-delivery-costing/>

**2. How does the cost of delivering COVID-19 vaccines change when you factor in the spread of delivery sites within a country/area?**

**Reply:** Generally speaking, if delivery sites are more spread out within a certain country/area, we would expect to see costs related to transporting vaccines to health facilities to increase. This would affect both total costs and unit costs. In our study, this can be seen in our analysis of vaccine delivery costs at urban and rural sites. Across countries, we have found that delivering vaccines at urban sites was costlier than delivering at urban sites. You can find more information in each country report: <https://immunizationeconomics.org/c19-vaccine-delivery-costing/>

**3. With the cut in global health funding, wouldn't commodity costs in vaccine costing studies be a strong consideration so that countries are well positioned to take on the cost of vaccinating their populations and also increasing their capacities to manufacture these vaccines locally?**

**Reply:** Including commodity costs (vaccines and vaccination supplies) into the unit cost estimates can give a more complete picture of immunization programs' budget impact. However, while delivery costs can vary significantly across sites, geographies, delivery strategies, and target populations, the price of vaccines and supplies is usually constant. For vaccines and supplies procured through UNICEF can be accessed online (<https://supply.unicef.org/>). In our COVID-19 vaccine delivery costing study we included vaccination supplies costs, but excluded vaccine costs as vaccine prices were very uncertain at the time of the study and have since changed significantly.

**4. Is there evidence on cost-effectiveness of adult vaccination in countries assessments in terms of cost per DALYs averted or QALYs?**

**Reply:** Our study did not look at the cost effectiveness of COVID-19 vaccination in terms of cost per DALYs averted or QALYs.

**5. What are the components of opportunity costs in this maternal immunization study?**

**Reply:** Value of existing health workers time spent on maternal immunization related activities (for example, time spent in training, service provision) and the value of donated goods are the main components of opportunity cost. The study took a government's perspective and assumed that the vaccine doses would be donated to the government. Thus, the cost of vaccine doses is included in opportunity cost estimates.

**6. How did you take into account the equity aspect in the estimated costs? I find that there is a big difference in cost in Africa context when interventions are**

**implemented in rural and urban areas or for different wealth contexts, e.g. in terms of community engagement and logistics.**

**Reply (maternal immunization):** This study did not generate cost estimates for different geographic settings – rather unit costs of introduction and delivery were generated at the national level using average cost estimates across geographies. We acknowledge the potential variations in cost of implementation across geographies; primary data collected to inform cost estimates were gathered from a range of health facilities/administrative units partly representing some of these variations.

**Reply (COVID-19 vaccine delivery costing):** For the COVID-19 study, we sampled both urban and rural health facilities, larger and smaller volume sites, different geographies and both public and private sector sites in some cases, and consulted with EPI officials at different levels of the health system to ensure our sample reflected the diversity of each country, including different requirements in terms of community engagement and logistics, as much as possible.

**7. Why there is such a difference of low costs in the COVID-19 vaccine presentation vs delivery costs in the maternal immunization presentation?**

**Reply (maternal immunization):** Making precise comparison of costs between the two study is difficult. The costing approach taken for the maternal immunization costing study is prospective (cost projection) whereas Covid -19 cost analysis used the actual expenditure of the vaccination program. A few other things that could explain the variations across two study include different delivery strategies, target population, geographies and settings, among many others.

**Reply (COVID-19 vaccine delivery costing):** COVID-19 programs targeted a much larger population and overall delivered many more doses. We have seen in our study that delivery volume at vaccination sites was a key determinant of the cost per dose delivered, with sites that delivered more doses incurring in a lower cost per dose. Differing delivery volumes are likely to be the main driver of the difference in cost that we can observe between COVID-19 vaccine and RSV maternal immunization delivery costs.

**8. Does the cost include social costs such as support from community health workers or others?**

**Reply:** Cost of social mobilization from a government's perspective is included in the cost estimates. Need for various community mobilization activities identified by the Ministry focal points were costed and are reflected in the cost estimates. However, the social cost from community/societal perspective is not included as the study takes on a program perspective.

**9. Since training costs were very high for maternal immunization, could virtual strategies be used to substantially lower training costs?**

**Reply:** Virtual training option could be an efficient/cost saving strategy to lower the training cost across countries assuming similar effectiveness between an in-person and virtual training.

**10. Based on your findings how do you see the prospects of implementation of maternal RSV vaccines in near future?**

**Reply:** The decision to implement/introduce a new vaccine is entirely upon country decision makers. This study provides the cost of RSV maternal vaccine program that

country decision makers can use to evaluate the RSV vaccine together with all other vaccines in their portfolio, health budget envelope (among many other factors like disease burden, other health priorities) in order to prioritize their investment decisions. From the cost perspectives alone, the RSV maternal vaccine cost is within the range (higher for some countries) of other childhood vaccines.