

Summary of LNCT Webinar: Incremental Costs of Immunization During COVID-19

Overview

On July 16, 2020, LNCT organized a webinar with panelists from ThinkWell – Laura Boonstoppel, Christina Banks, and Flavia Moi – and the Harvard T.H. Chan School of Public Health – Allison Portnoy – to discuss their findings from recent analyses on additional costs associated with modifications to routine immunization, mass campaigns, and outreach services during COVID-19.

The discussion group had a total of 69 attendees – 38 from LNCT countries, 11 from other MICs and LICs, and 32 from HICs. LNCT provided simultaneous interpretation for French participants. Throughout the discussion, participants were able to raise questions to the speakers.

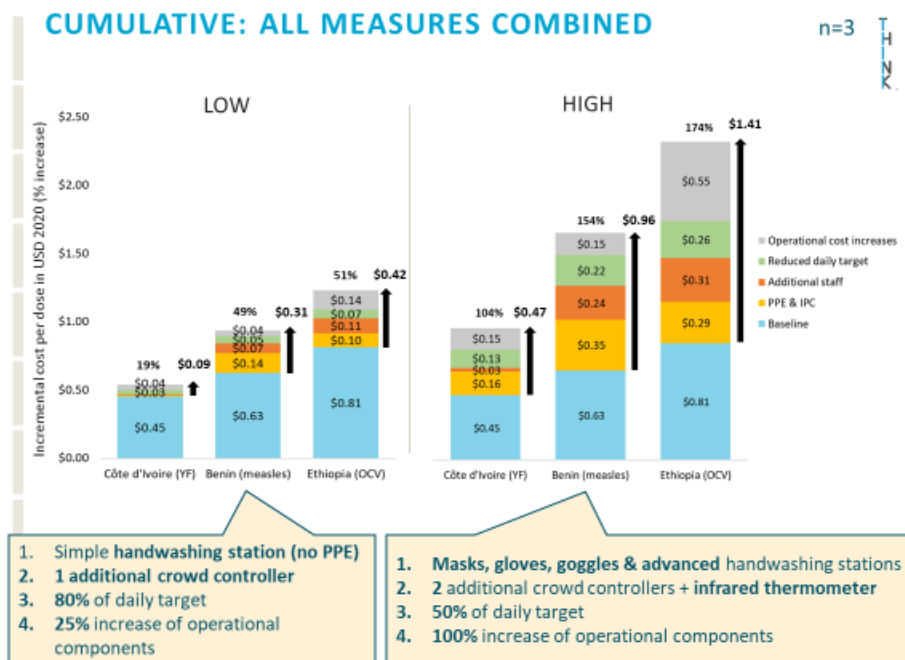
Background

These analyses began in April 2020 when it became evident that the coronavirus pandemic was posing a major threat to global immunization coverage levels. As of June, 78% of Gavi countries reported disruptions of immunization services and many also suspended outreach services. To maintain immunization coverage, national immunization programs must be adequately prepared to provide protective measures that will ensure the safety of health workers and the communities. This means that modifications may be needed to minimize the risk of COVID-19 transmission. The overarching question of this research was: how much more does it cost to ensure continuation of immunization services during the COVID-19 pandemic? To answer this question, the researchers explored four different scenarios:

1. Personal protective equipment and infection prevention and control measures for immunization sessions
2. Adding staff to ensure physical distance is maintained and for screening during immunization sessions
3. Changes in session sizes and frequency and hazard pay to compensate health workers
4. Operational cost increases including additional social mobilization, communication, training, transport

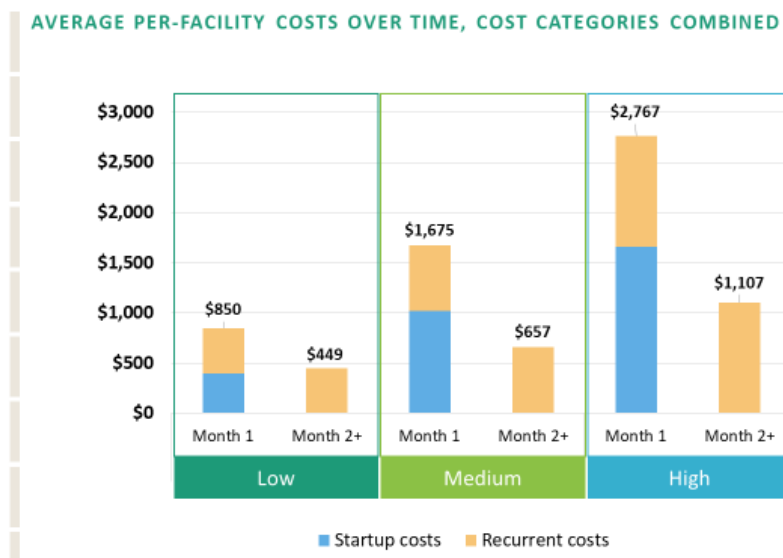
Mass Campaigns

This part of the study used campaign costing studies from 10 low- and middle-income countries. Within each of the four scenarios, the researchers explored different levels of intensity regarding the specific measures employed. For the first scenario looking at PPE and IPC, they included 1) the addition of a simple handwashing station and hand sanitizer, 2) handwashing stations, hand sanitizer, and masks, and 3) advanced handwashing stations, hand sanitizer, masks, goggles, and gloves. The second scenario, physical distancing and screening looked at 1) adding one additional crowd controller and 2) adding two crowd controllers and one infrared thermometer per team. The third scenario looked at multiple scenarios for extending the campaign duration including 1) additional health worker per diems associated with a reduction to the daily target to 80% of the original achievement and 2) reducing to 50% of the daily target. Finally, they looked at increases to operational costs for 1) increase of 25% of all cost components potentially affected by COVID-19, 2) increase of 50%, and 3) increase of 100%. The results show that the campaign costs per dose could increase between 19% and 174%, depending on the specific changes added to the package of service modifications.



Routine Immunization

In the routine analysis, the researchers estimated the incremental financial outlays required to make COVID-related modifications to routine immunization. The analysis looked at one-time start-up costs in low, medium, and high intensity scenarios, as well as costs that would be expected to recur on a monthly basis.



Labor costs, including hazard pay and hiring additional staff to enforce physical distancing, account for approximately 95% of monthly recurrent costs and 60–80% of all incremental costs. Excluding these cost categories results in 12-month per-facility costs of \$500–2,300 by scenario intensity.

Outreach Services

The analysis on outreach services was based on two existing costing studies on routine outreach in Tanzania and Indonesia. In Tanzania, a small percentage – 14% – of vaccines are delivered through outreach services with a median of two outreach sessions per month per facility, whereas in Indonesia, 67% of vaccines are delivered through outreach with a median of 24 sessions per month per facility. The researchers analyzed the cost per dose of delivering outreach services while providing PPE for health workers and instituting IPC measures at different levels of intensity. In addition to looking at measures for PPE and IPC and physical distancing and screening, they addressed compensating for a drop in attendance for vaccination at facilities and in schools by covering more kids through outreach, the cost of outreach by geographic area (urban vs. rural), and changes in both session size and session frequency.

Changes in the outreach delivery costs are highly dependent on the initial strategy: the volume delivered through outreach, session size and session frequency, remuneration for health workers specific to outreach, but PPE and IPC interventions are the biggest driver of delivery cost increases in outreach. Outreach delivery costs in rural areas are high in the ‘status quo’, and the absolute USD change per dose is the largest here.

Discussion

Was there some estimation to discount what might be current standard practices already (i.e. health workers should already have a place to wash hands). Some operational costs could be integrated with the COVID-19 response. Have these been taken into account?

In the case of routine fixed facilities, IPC measures were already included in the cost estimates. For category 1, they only looked at additional PPE measures that would be required for health workers in the COVID context. For category 2, the IPC measures included were specific to waiting area infrastructure modifications or outdoor screening tents. With regards to social mobilization and training, they relied on the costing studies looking at new vaccine introductions and looked at the costs for social mobilization and training to be at a minimum of the cost for these activities to introduce a new vaccine.

Do some of these projections imply that we need to hire more staff?

With regards to mobilizing additional health workers for mass campaigns and outreach services, it was assumed that any additional health workers would be existing facility-based staff, so only per diems were calculated. For routine immunization services, they included the full salary cost per month of hiring 1-2 additional crowd controllers for screening and patient intake.

Have any of these estimates considered life insurance for health workers?

Hazard pay was included in the cost calculations for mass campaigns, outreach services, and routine immunization. This was used in place of a measure like life insurance, as it was assumed this would be a temporary, time-limited measurement to help compensate for risk.

Have additional training costs for health workers been accounted for (such as IPC training and new guidelines for safe service delivery)?

Some component of training for health workers was accounted for in all three analyses in category 4. In the routine fixed-facility analysis, they specifically accounted for health worker training as its own category linked to new vaccine introduction costing studies. For the COVID-19 context, they assumed a range of 100-150% of those costs.

Can these results be generalized to other countries?

All of these studies were based on a limited data set and the contexts from the studies ranged widely in terms of targeted populations. Country-specific guidance and policies should be reviewed before translating these results to other country contexts.

When you were talking about campaigns, did you mean fixed-site without outreach or was outreach accounted for in the estimated costs?

There was no differentiation between fixed facility sites and school/community-based sites.

Under the high intensity scenario, there were fairly high operational costs at facilities. Can integration of health services lower those costs?

There is limited information about packaging immunization services with other well-child visits. This is a limitation of the current analysis.

Is it possible to add an additional parameter estimating how many children are immunized?

In all of the analyses, it was assumed that the number of children reached through all the strategies would remain the same. The researchers have not looked at whether some countries are reducing the size of the target populations in the COVID-19 context, which could change the cost incurred at each level.

Is there an urban/rural dissociation between costs in additional outreach sites?

In the analysis for routine outreach, the researchers did notice that there were differences in the cost implications between urban and rural outreach sites. They found that the costs at urban sites was generally lower in the original delivery strategies, which had implications for the additional costs that routine outreach would incur under the new delivery strategies with the additional precautionary measures.

Next Steps

The authors of the analyses would love to hear from you! Please share your thoughts and inputs on the questions below on [this LNCT discussion forum](#) or by emailing LNCT Network Coordinators at info@lnct.global.

- How might you use this information in your program? Do these analyses give you the necessary budget information to support these increases?
- How are you thinking to restart/enhance your immunization services: through catch-up campaigns, additional outreach and/or strengthening routine?
- Would there be appetite for a calculator tool to evaluate the cost implications of alternative strategies and scenarios? Are you interested in piloting a calculator tool as we develop it?