

Cost of reaching zero-dose children through selected interventions compared with routine delivery in Punjab and Sindh

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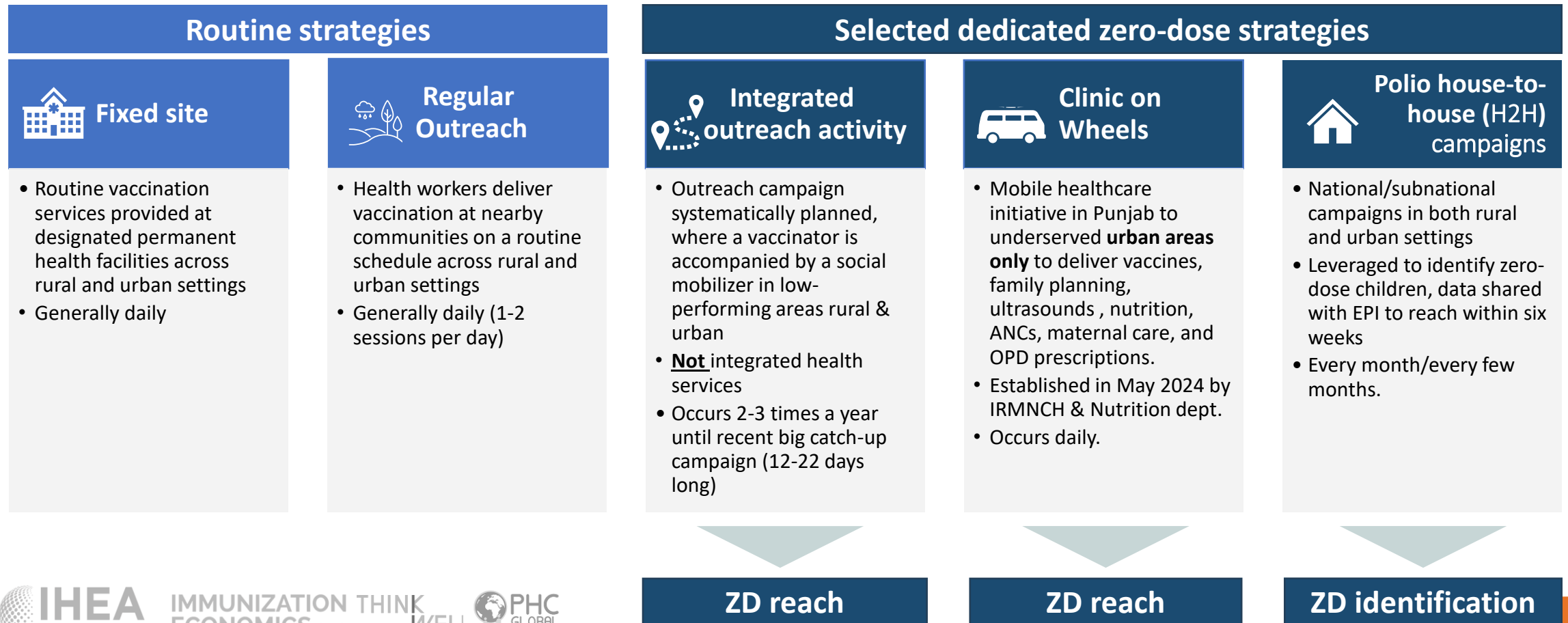


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Overview

Objective

Evaluate the cost and output of three key interventions targeting zero-dose children in urban and rural areas in Punjab and Sindh, as well as routine strategies





Brief study overview

Data collected from **42 primary health facilities & 2 mobile clinics** located within 26 Union Councils of 7 districts from 2 provinces. Three districts were urban & 4 were rural.

Zero-dose child: >18 weeks and not yet reached with Penta1 (EPI) or any injectable vaccines (polio)*

Obtained **financial & economic cost** data, along with perspectives from healthcare providers.





Full cost: Routine delivery and integrated outreach activity
Incremental cost: Clinic on Wheels and polio h2h

For each intervention, we collected data from the **most recent campaign** and **usual month** of routine activity.






**For polio h2h, 4 months used as proxy in Sindh as they recorded the age of children in months, not weeks*

Identifying and reaching zero-dose children: *Preliminary findings*

On average integrated outreach reached more ZD children per day, but not substantially more than routine outreach

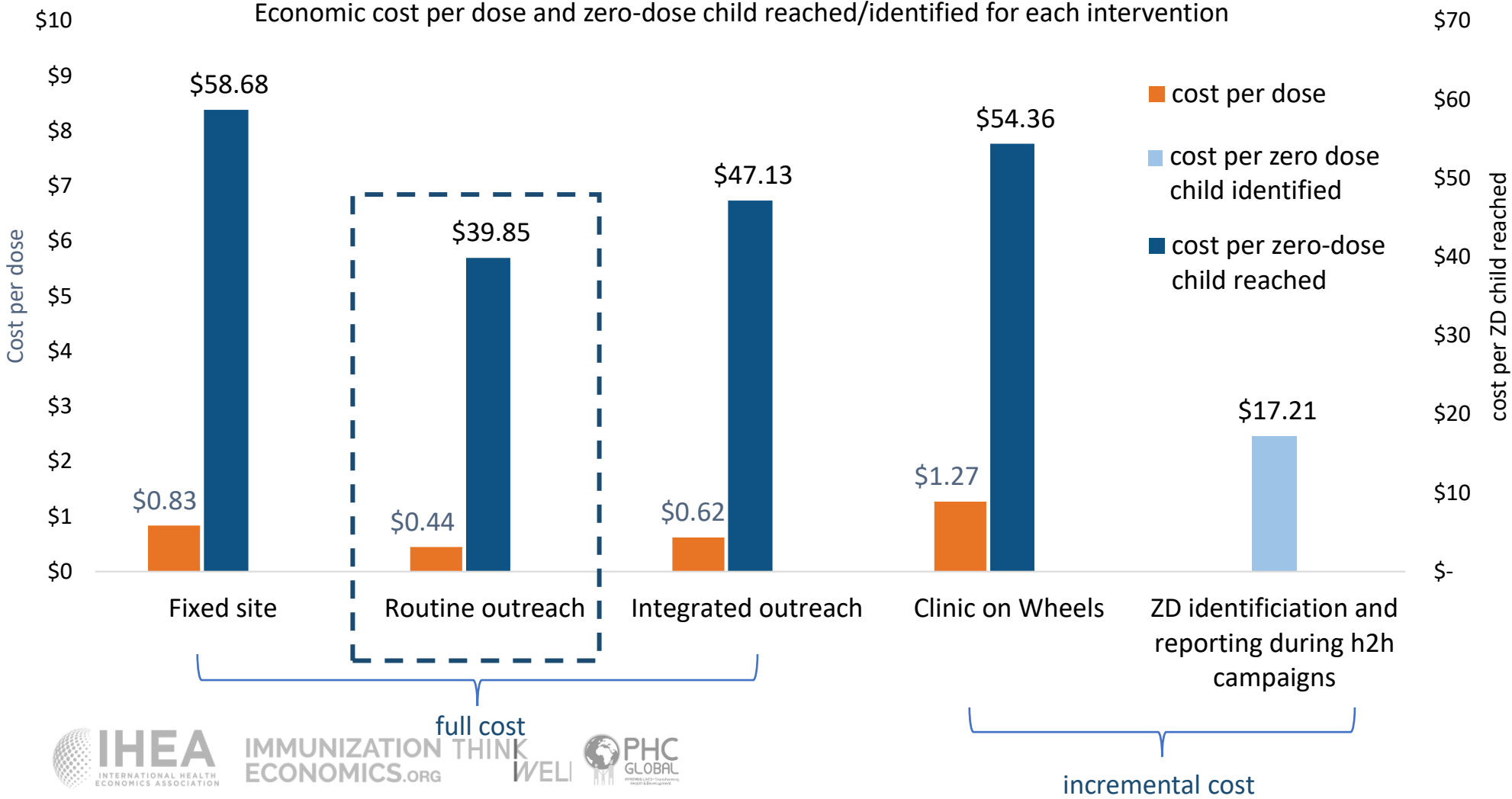
Intervention	Average doses delivered by Union Council <u>per day</u>	Average ZD children reached by Union Council <u>per day</u>
 Fixed site delivery	34	0.3
 Routine outreach	70	0.7
 Integrated outreach activity	97	1.3
 Clinic on Wheels <i>Punjab only</i>	33 <i>(382 services including ultrasounds, ANCs, OPD services, family planning)</i>	0.7

Polio house-to-house campaigns were effective at identifying zero-dose children though they are not always reached

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 Polio H2H campaigns	3,444 <i>Based on two districts in Punjab</i>	2.32

Not all identified ZD children from polio h2h campaigns are then reached by EPI. For the October 2024 campaign, in Punjab 90% ZD children identified by EPI were reached within six weeks, but in Sindh this was 43%

Overall, routine outreach incurred the lowest economic cost per dose and cost per zero dose child reached



Routine outreach has fewer staff and less financial support than most other strategies

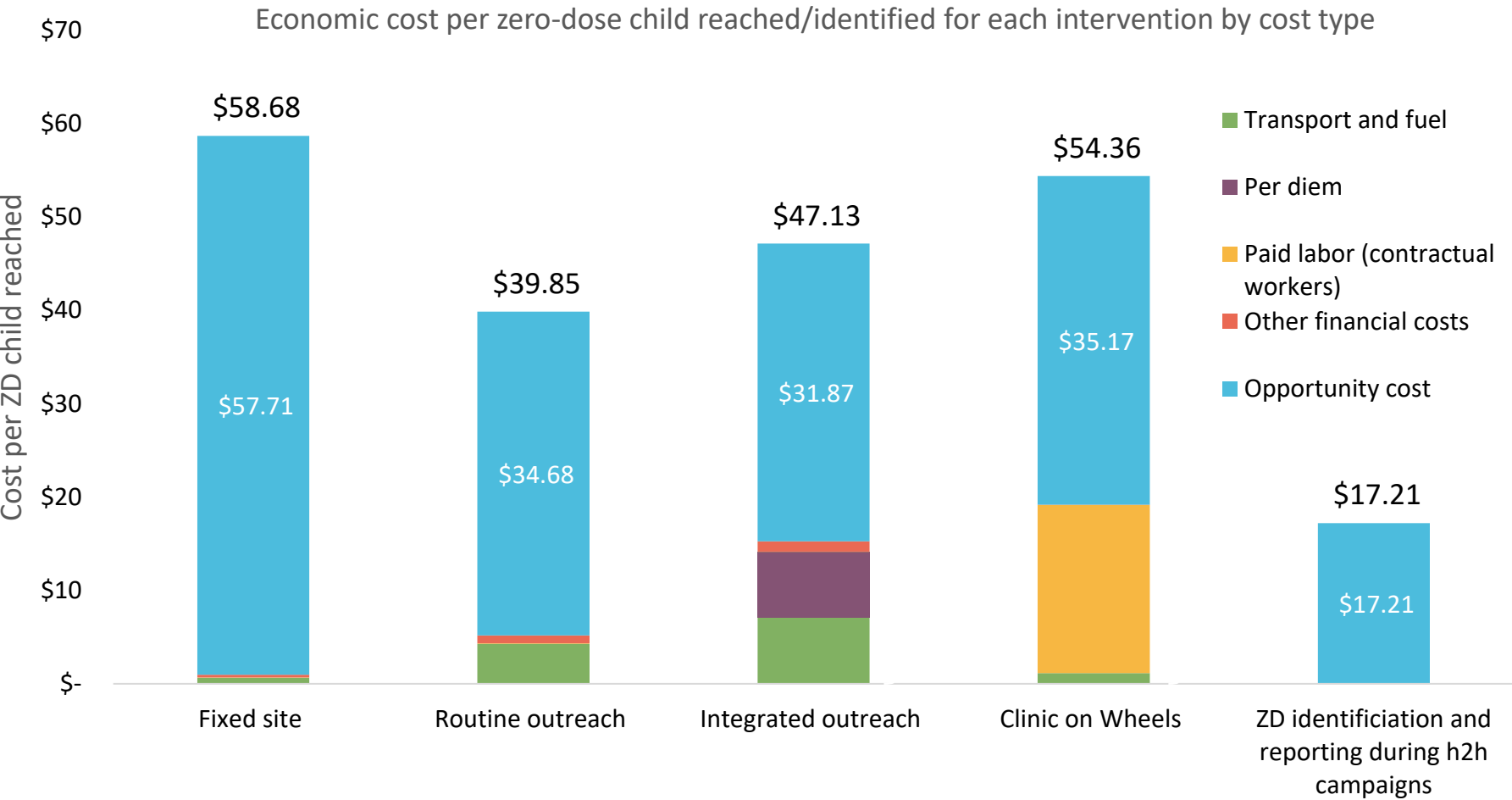
Clinic of Wheels had a relatively higher cost owed to being **better resourced** than other delivery strategies.



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Integrated outreach & Clinic on Wheels incur much higher financial cost per ZD child reached than routine activities



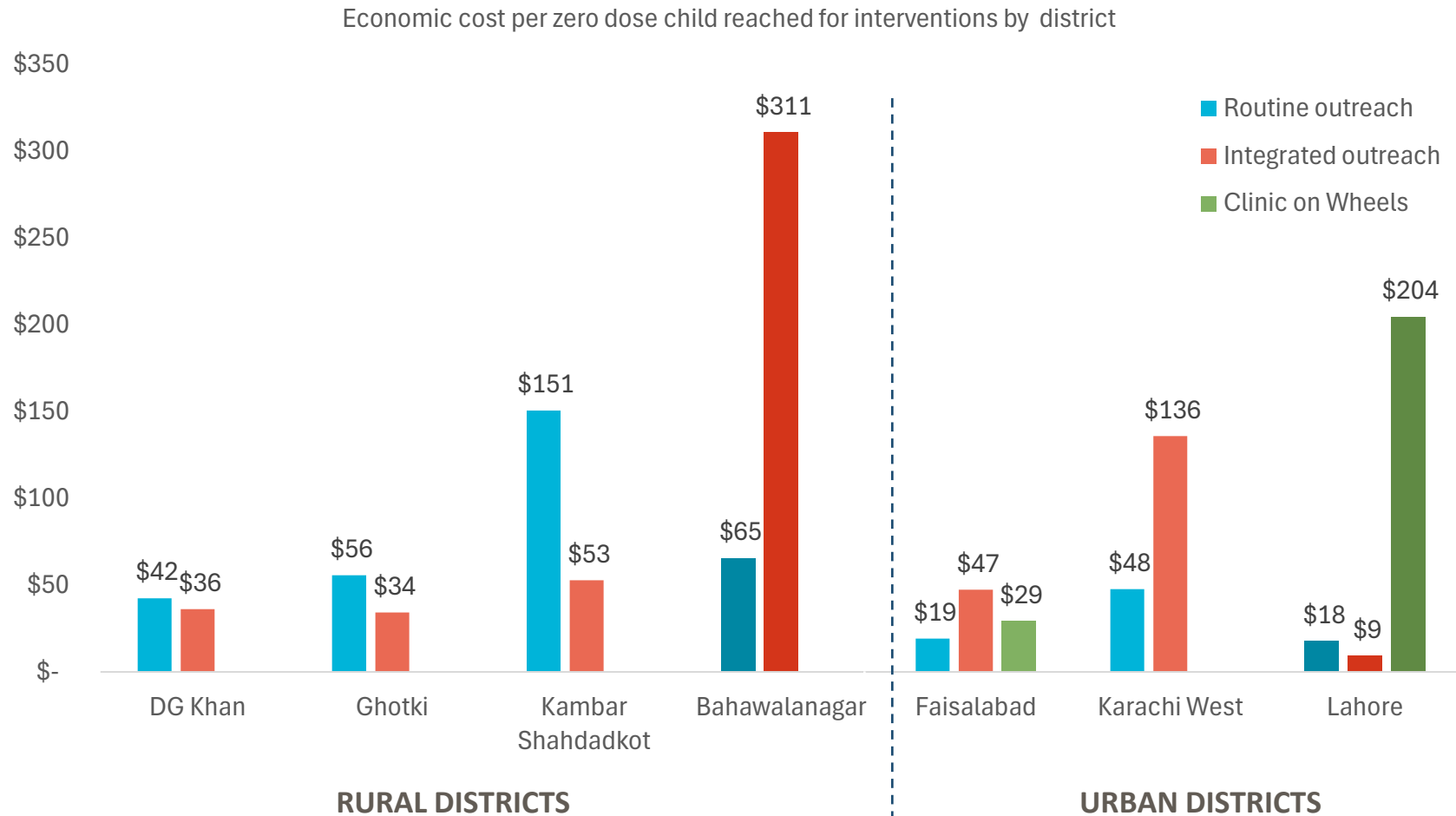
Financial cost for integrated outreach driven by per diem and travel allowances, for Clinic on Wheels driven by temporary workers.

Opportunity costs are primarily driven by labor for all strategies

No additional financial cost for identifying ZD kids in polio campaigns, just opportunity cost of additional staff time for ZD identification and reporting, estimated at **82 additional minutes per HRH per day**



In most urban districts, routine outreach was the more cost-efficient strategy than integrated outreach



Integrated outreach activity effectiveness was more limited in urban districts where public resistance to immunization is a significant barrier & routine outreach was better resourced (2.2 IOA vs 1.8 RO per day). *Exception was Lahore* where IOA was particularly well-staffed & made more gains.

In rural districts, integrated outreach activity fills critical infrastructure gaps resulting in substantially more ZD kids reached than routine outreach (1.4 vs 0.6 per day). *Exception was Bahawalnagar*, with significant weather-related access barriers during the activity.

Clinic on Wheels was more effective at reaching zero-dose children than routine delivery in settings where **ZD children are concentrated in informal settlements**

Key Takeaways

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To be effective, the intervention must match the specific zero-dose barrier in a certain context, whether that be addressing community resistance, routine infrastructure gaps, poverty, accessibility.

Immunization outreach campaigns such as integrated outreach activity, should be strategically deployed only where routine infrastructure gaps exist, not as a blanket intensification across provinces. IOA shows limited returns in more adequately-resourced urban areas such as Karachi West.

Clinic on Wheels is a highly targeted intervention, and more effective where ZD are concentrated in informal settlements. However, it is relatively high-cost intervention compared to outreach

ZD integration is a relatively efficient add on to the polio h2h campaign as incurs no additional financial cost, though the ability to reach ZD children hinges on the strength of the EPI. While a vital microplanning tool for EPI, polio h2h campaigns are costly and donor-reliant, and the country needs to strengthen EPI microplanning to prepare for a future polio transition.



Thank you

Read more on
our analysis here



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