

\$1.73 per dose! Low-cost yet expensive C19 vaccination program in Vietnam.

The cost of delivering COVID-19 vaccines in Vietnam

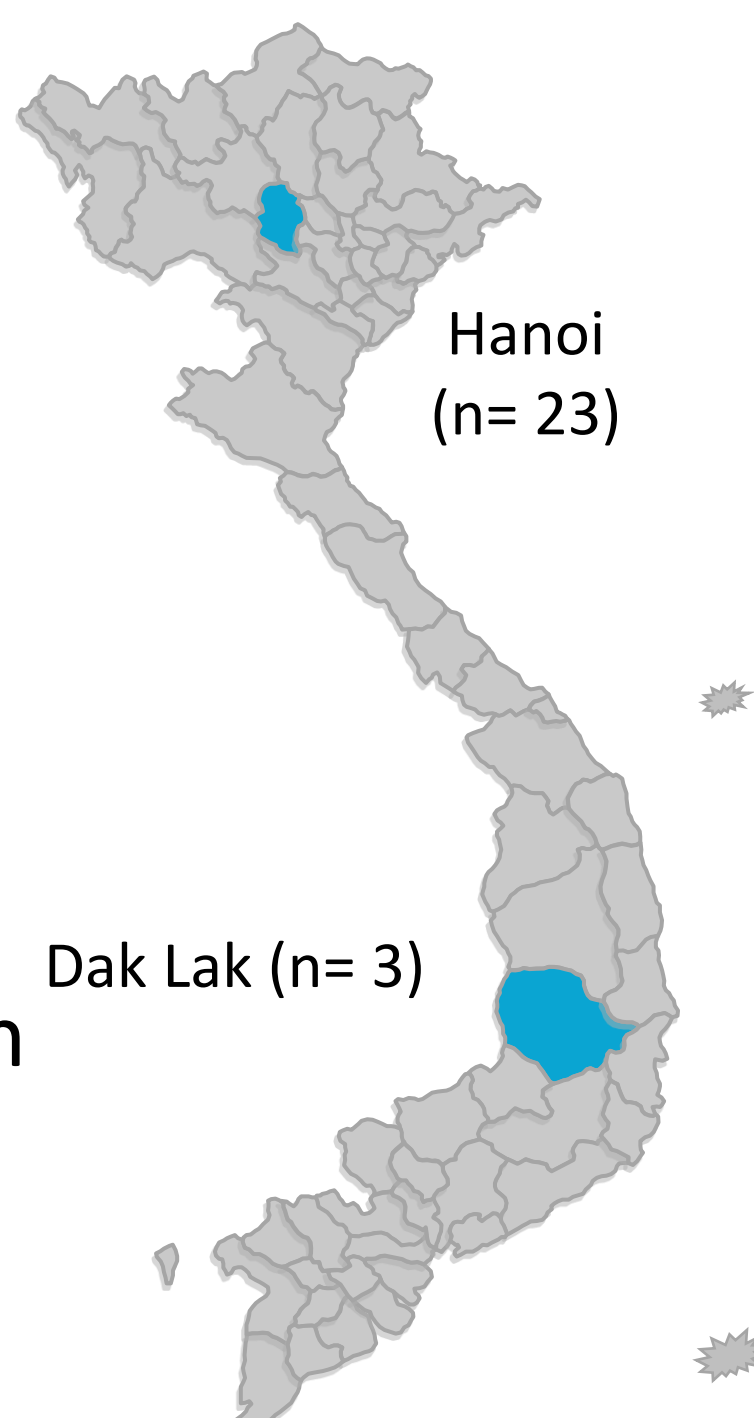


Background

In March 2021, Vietnam launched its COVID-19 (C19) vaccination program targeting priority populations, amid scarcity of vaccine supply. In July 2021, eligibility for the vaccine was expanded to the general population, and the vaccination effort scaled up significantly. By the end of 2021, Vietnam had delivered more than 150 millions C19 vaccine doses. A tremendous amount of resources, especially labor, were mobilized for the program.

Methods

- **Retrospective, bottom-up** costing study with complementary top-down review of budget and expenses reports.
- Purposively sampled **26 immunization sites** (13 facility-based and 13 temporary sites) in two provinces, including in urban, peri-urban and remote areas.
- **Payer perspective**: costs incurred by the health staff, the NIHE, and development partners, at all levels of the health system in **2021**.
- Complementary **qualitative** assessment to further understand the implementation of the program.



Key takeaways

- C19 vaccination program in Vietnam was a huge **success** as a result of the effective collaboration across sectors and administrative levels.
- Funding still fell **short**, limited investments to expand capacity ahead of roll-out resulted in **inefficient** vaccine distribution practices, and greater recurrent costs.
- The **low financial cost** reported in this study masks shortages in funding for staffing and other resources that the C19 vaccination program had to work around.
- Heavily relying on **existing resources** placed a significant burden on health workers, and potentially caused disruptions to the delivery of other health services, the cost of which are not quantified in our study.
- Delivery through temporary sites was very labor-intensive and costly, even during high-volume periods, drawing into question the **sustainability** of this delivery modality.

Findings

1. The economic cost per dose was \$1.73

- **Opportunity** costs represent **66%** of economic cost per dose.
- Mostly driven by **labor costs** and **injection incentives**, for **service delivery**.

2. Temporary sites were more costly

- Delivered **3 times more doses**
- Larger team size: 43 vs. 14 members
- More person/minutes per dose : 42 vs. 15

3. Delivering in urban areas was more costly

- Higher labor costs due to longer working hours
- 35 person/minutes per dose delivered (22 in peri-urban and rural areas)

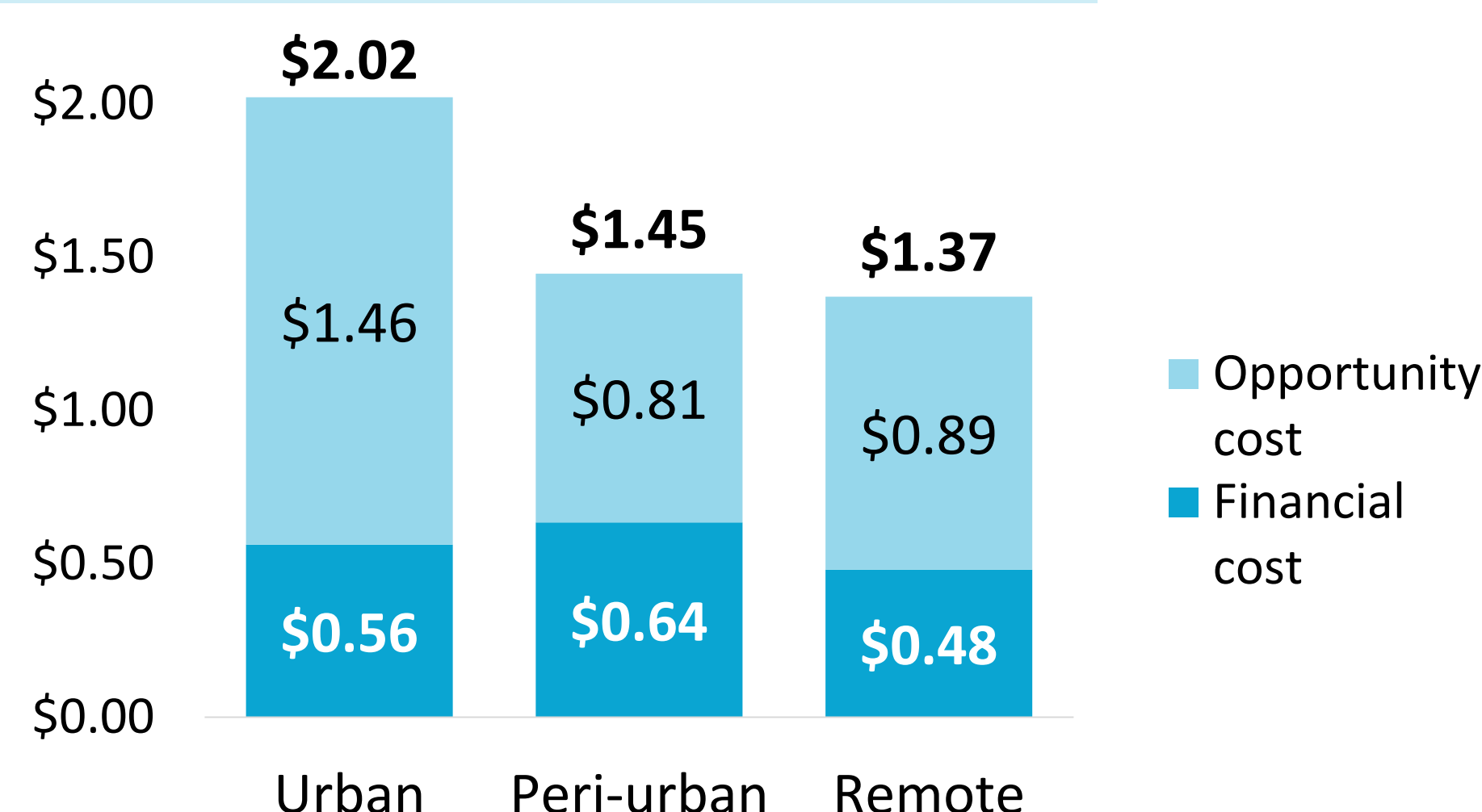
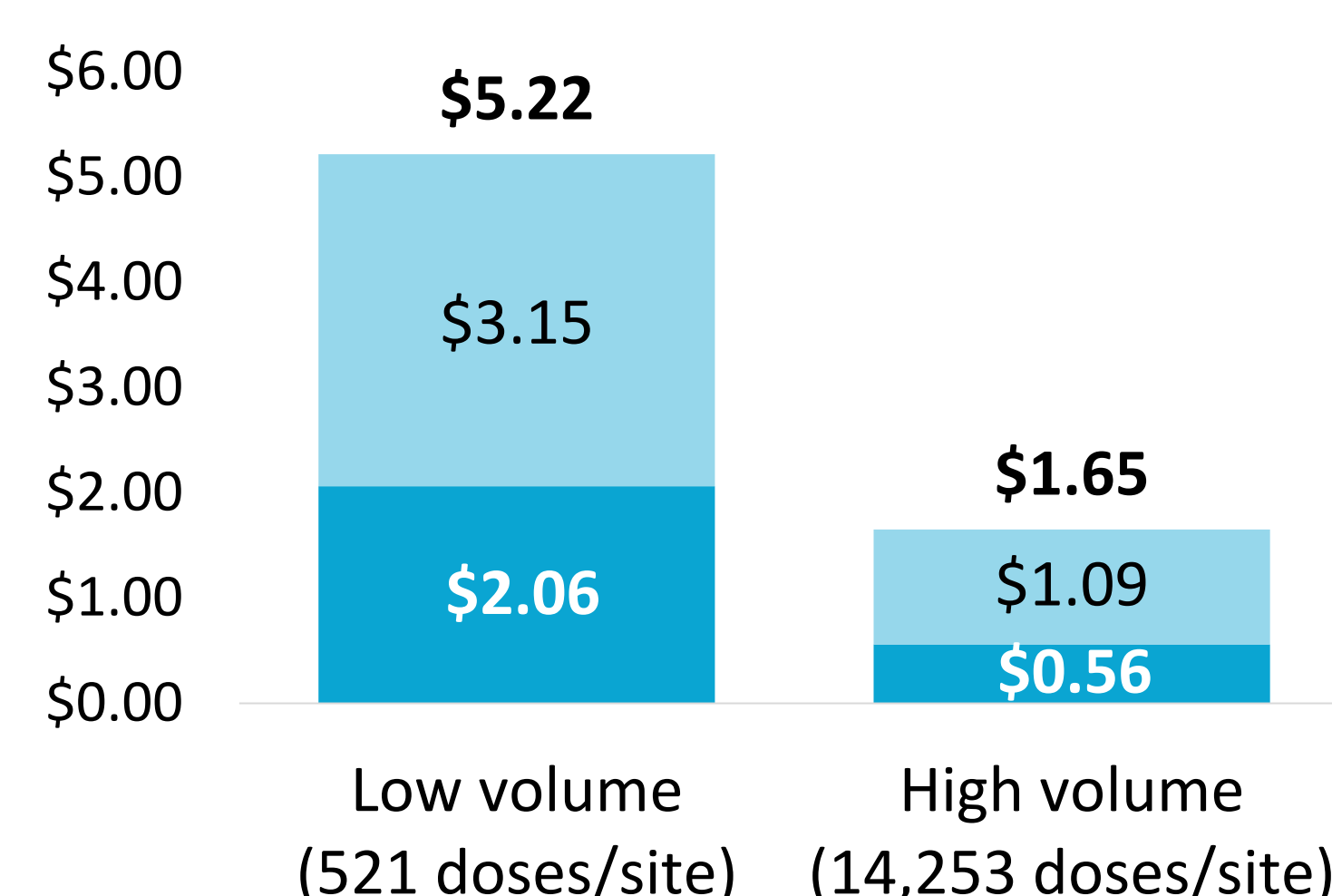


Figure 1. Economic cost per dose across delivery strategies, by resource type



4. Cost per dose was higher during low-volume period



- Lower delivery volume led to higher recurrent cost (e.g. transportation)
- Daily cap led to lower injection incentive costs when delivery volume increased

Management and funding

- Managed and implemented leveraging **existing structures, resources, and funding flows** established to implement the National Expanded Program on Immunization.
- **Private** citizen and **domestic** organizations' donations filled gaps at the national and local level.

Enabling factors

- Effective collaboration and staff commitment.
- Leveraging of communication technologies.
- Lockdowns facilitated program implementation.
- Rapid and effective response to initial vaccine hesitancy.

Challenges

- Overburdened health staff due to high workload, high pressure, and shortages.
- Social distancing regulations increased workload at temporary sites.
- Laborious reporting/verification process, and issues in the introduction of a new software.



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