COVID-19 vaccine delivery insights from global surveys

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Since our founding in 1971, MSH has improved health systems in more than 150 countries worldwide.

Last year MSH supported 5,000+ health facilities, trained 9,800+ healthcare personnel, and fully vaccinated 16.7+ million people. Today we work in 49 countries, including COVID-19 vaccination delivery in 17 countries.
The MTaPS COVID-19 Vaccination Costing work provides insights to the USAID Vaccine Access and Delivery Initiative (VADI) leadership
About our global surveys

Survey tool designed to build on existing data sets

Survey 1: Nov 8 – Dec 3
Survey 2: April 25 - May 13

Survey 1 Participation: 15 LMIC countries (MSH offices)
Survey 2: from 21 LMIC countries (MSH and UNICEF offices)

MSH Survey Questions
- Survey areas included vaccine demand generation; vaccine delivery methods, vaccination supplies; booster doses, HR needs for vaccination and cold chain assessments. Sub-populations and other challenges were also surveyed in Survey 2.
- 51 MSH and UNICEF responses from 21 countries responded to the survey. They actively participate and supported or led planning, coordination, or directly involved in the rollout.
Human Resources
• More countries hiring new staff
• Reliance on temporary workers and consultants
• High burden on HCWs

Vaccine Delivery
• Delivery methods adapt and change
• Traditional delivery inadequate
• Increasing use of campaigns and mass vaccination sites

Demand Generation
• Traditional and new strategies
• Financial incentives for community mobilizers
• Combating misinformation

Boosters
• Increasing offering of booster
• Lower priority for countries
• A focus on HCWs, seniors and people with comorbidities.

Cold Chain
• Increasing availability
• Significant gaps at the sub-national levels

Supplies
• Issues mostly resolved

Sub-populations
• Limited focus, in ‘accessible’ populations
Two aspects where the global survey helped inform the modeling efforts from the last iteration published in Jan 2022:

**Human Resources**
Large uncertainty on the extent existing staff can (or should) be reallocated to deliver C19 vaccinations. Huge implications on costs for HR surge

- Protecting Fully: 0-5% reallocation, HR Surge 60.4% of total cost
- Protecting Partially: 5% reallocation, HR Surge 26% of total cost
- Balancing: 10% reallocation, HR Surge 9.7% of total cost
- Leveraging: 10% reallocation, HR Surge 14.6% of total cost

**Vaccine Delivery**
Countries introducing new modalities -- but not fully captured in the previous analyses. Outreach, for instance, are more resource intensive.

- Protecting Fully, Protecting Partially, Balancing, (50% Fixed, 50% Outreach)
- Leveraging (85% Fixed, 15% outreach)
Human Resources

COVDP model assumes countries reallocate 5% labor towards COVID-19 vaccination

Survey findings
- No reallocation (0%) - 8 countries
- Some reallocation (≤5%) - 6 countries
- Reallocation (>5%) - 13 countries
- Reallocation but unknown amount - 3 countries
- Unclear or conflicting info - 3 countries

Median was 5% but data range widely.
More information is needed – exploring a third global survey

Sources
- McKinsey Sprint: CVIC, MTaPS first survey, Country Discussions, CDS (20 countries)
- USAID/MTaPS second global survey (21 countries)
### Vaccine Delivery: Data on Mass Vaccination Sites

<table>
<thead>
<tr>
<th>LIC (&lt;$1046) 8/16 (50%)</th>
<th>LMIC ($1046-$4095) 17/28 (60.71%)</th>
<th>MEDIAN 37.5%</th>
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<td>• Botswana 10%</td>
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** Others: **
- Somalia 89%
- Madagascar 30%
- Malawi 25%
- Uganda 70%
- Burkina 12.5%
- Cote d'Ivoire 70%
- Philippines 12.5%
- Sri Lanka 37.5%
- Ukraine 37.5%
- El Salvador 12.5%
Vaccine Delivery

COVDP model assumes delivery modality split at 54% fixed site, 20% outreach, and 26% mass sites (varies by country)

Sources
- McKinsey Sprint / UNICEF triangulation / USAID MTaPS first global survey (16 countries)
- JSI/USAID M-RITE (9 countries)
- USAID/MTaPS second global survey (21 countries)
- UNICEF NVDP (24 countries)

If data on % available → use data at hand
If DM types available but no % → impute with median %
If no data is available → impute with % DM * median %

<table>
<thead>
<tr>
<th>Category</th>
<th>Fixed Site</th>
<th>Outreach</th>
<th>Mass Vaccination Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>62.5%</td>
<td>11%</td>
<td>30%</td>
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<tr>
<td>LMIC</td>
<td>56.25%</td>
<td>18.75%</td>
<td>37.5%</td>
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<tr>
<td>UMIC</td>
<td>33.40%</td>
<td>11.70%</td>
<td>38.50%</td>
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Estimated will then be calibrated to 100%
Thank you!

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Countries' use of Fixed Site

**LIC (<$1046)**
- 15/16 (93.75%)
  - MEDIAN 62.5%
    - Burundi 100%
    - Madagascar 60%
    - Malawi 30%
    - Lesotho 20%
    - Burkina 62.5%
    - Uganda 62.5%
- No Fixed Site
  - Mali

**LMIC ($1046-$4095)**
- 27/28 (96.43%)
  - MEDIAN 56.25%
    - Tanzania 12.5%
    - Zimbabwe 50%
    - Benin 50%
    - Senegal 70%
    - Bangladesh 75%
    - Cameroon 75%
    - Kenya 12.5%
    - Nigeria 75%
    - Cote d'Ivoire 62.5%
    - Philippines 62.5%
    - Sri Lanka 62.5%
    - Ukraine 37.5%
    - El Salvador 75%
    - Mongolia 37.5%
- No Fixed Site
  - Angola

**UMIC ($4096/capita+)**
- 4/4 (100%)
  - MEDIAN 33.4%
    - Guatemala 6.7%
    - Botswana 60%
  - No Fixed Site

*Note: The diagram and text are not aligned in a single table format, but the data is presented in a structured manner with countries listed by their percentage of fixed site usage.*
Countries' use of Outreach

<table>
<thead>
<tr>
<th>LIC (&lt;$1046)</th>
<th>LMIC ($1046-$4095)</th>
<th>UMIC ($4096/capita+)</th>
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<td>11/16 (68.75%)</td>
<td>21/28 (75%)</td>
<td>2/4 (50%)</td>
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</table>

**MEDIAN 11%**
- Somalia 11%
- Madagascar 10%
- Malawi 22.5%
- Uganda 5%
- Lesotho 70%

**Median 18.75%**
- Tanzania 12.5%
- Benin 25%
- Kenya 12.5%
- Bangladesh 37.5%
- Cote d'Ivoire 12.5%
- Philippines 37.5%
- Eswatini 80%
- Ukraine 12.5%
- El Salvador 12.5%
- Mongolia 62.5%

**Median 11.7%**
- Guatemala 3.3%
- Botswana 20%
Countries' use of Mass Vaccination Sites

**LIC (<$1046)**
- 8/16 (50%)
  - **MEDIAN 30%**
    - Somalia 89%
    - Madagascar 30%
    - Malawi 25%
    - Uganda 70%
    - Burkina 12.5%

**LMIC ($1046-$4095)**
- 17/28 (60.71%)
  - **MEDIAN 37.5%**
    - Tanzania 12.5%
    - Benin 25%
    - Angola 80%
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**UMIC ($4096/capita+)**
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    - Botswana 10%