Understanding and Clearing Immunisation Backlogs in the Wake of the COVID-19 Pandemic

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Location: Indonesia

Tuesday, 6 December 2022
Indonesia Context

Demographic
- 275.7 million inhabitant (57% of population – urban area)*
- 34 provinces, 514 districts and 17,504 islands
- 10,179 primary health facilities and 1.445 private hospital (Health Indonesia profile 2021).
- 2.3% fertility rate
- Birth cohort more than 4.3 million**

Income and social economics***
- GDP average annual growth rate 3.7% (2021)
- Life expectancy at birth from 62 years in 1990 to 72 years in 2020

Source:
*) Statistic Agency (BPS)
**) MoH Decree R.I No. 5675/2021 regarding data of the target population for the health development program
***) World bank data
National Immunization Program (NIP)

Routine immunization program

- 12 antigens
- Immunization system: Public and private health facilities and free of charge
- Vaccines and logistics (national level) and operational cost (sub national level)

<table>
<thead>
<tr>
<th>AGE</th>
<th>TYPE OF IMMUNIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;24 hours</td>
<td>Hepatitis B</td>
</tr>
<tr>
<td>1</td>
<td>BCG, OPV1</td>
</tr>
<tr>
<td>2</td>
<td>DPT-HepB-Hib1, OPV2, PCV1, RV1</td>
</tr>
<tr>
<td>3</td>
<td>DPT-HepB-Hib2, OPV3, PCV2, RV2</td>
</tr>
<tr>
<td>4</td>
<td>DPT-HepB-Hib3, OPV4, IPV, RV3</td>
</tr>
<tr>
<td>9</td>
<td>MR1, IPV2</td>
</tr>
<tr>
<td>10</td>
<td>JE* (endemic region)</td>
</tr>
<tr>
<td>12</td>
<td>PCV3</td>
</tr>
<tr>
<td>18</td>
<td>DPT-HepB-Hib4, MR2</td>
</tr>
</tbody>
</table>

- Scale up nationwide in 2022
- Introduce in Dec 2022 at selected province/district

School Based Immunization

BULAN IMUNISASI ANAK SEKOLAH

Grade 1 - DT-CR  
Grade 2 - Td   
Grade 5 - HPV Td  
Grade 6 - HPV
## Routine Immunization Program Target Groups

Indonesia has a large target groups for routine immunizations

<table>
<thead>
<tr>
<th>No</th>
<th>Target Groups</th>
<th>Denominator (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Infants (0 – 11 months)</td>
<td>4.373.429</td>
</tr>
<tr>
<td>2</td>
<td>Under two years (18 – 24 months)</td>
<td>4.370.223</td>
</tr>
<tr>
<td>3</td>
<td>School – age groups</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. First grade</td>
<td>4.387.385</td>
</tr>
<tr>
<td></td>
<td>b. Second grade</td>
<td>4.393.317</td>
</tr>
<tr>
<td></td>
<td>c. Fifth grade</td>
<td>4.411.273</td>
</tr>
<tr>
<td></td>
<td>d. Fifth grade (female)</td>
<td>2.160.105</td>
</tr>
<tr>
<td></td>
<td>e. Sixth grade (female)</td>
<td>2.162.914</td>
</tr>
<tr>
<td>4</td>
<td>Child Bearing Age Woman (15 – 39 yo)</td>
<td>53.522.457</td>
</tr>
</tbody>
</table>

71 million people
Gavi transition status

GNI per capita increased

$ 790 (2002)
$ 3,730 (2013)
$ 4,050 (2019)
$ 3,870 (2020)
$ 4,140 (2021)

- MICs, World Bank 2021-

Gavi support - eligible

- NVS - IPV up to 2027
- AMC or vaccines procurement through UNICEF SD for 10 years
- MICs application (2023-2025)
Status of Routine Immunisation Coverage
Status of Coverage

- Pentavalent being introduced since 2013 and nationwide roll out in 2014
- Stagnant coverage pre-pandemic
- Coverage decline in 2020 – 2021

Source: JRF WHO – Unicef estimate 2012 – 2021 (official estimate)
Overview of Coverage

National coverage:
Routine immunization coverage decline from 88% in 2019 to 76% in 2020 and 87.3% in 2021

Equity
Decrease number of districts/city achieve complete routine immunization coverage in 2021 compared to 2019
- DPT3 (398 to 267 districts/cities)
- MR1 (295 to 238 districts/cities)
- MR2 (88 to 32 districts/cities)

Source: JRF WHO – Unicef estimate 2019 – 2021 (official estimate)
Disruption & Mitigation Strategies
Understanding Disruptions

Will you bring your child for immunization during the COVID-19 pandemic? followed more than 25,000 respondents

- 84% of all health facilities reported immunization service interruption at fixed and outreach sites.
- 68.5% afraid of contracting COVID-19 during vaccination and 31.5% other reason
- 43% private clinics and hospitals have become the primary source for seeking childhood immunizations

Vaccination hesitancy:
- Accept some, delay some, refuse some
- Refuse all vaccines
- Don’t know 13.3%
- Passive Acceptance
- Yes 64.0%
- No 22.6%


Roll out COVID-19 vaccination 2021
### Disproportionate Impact of Disruptions

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization coverage</td>
<td>-24.47%</td>
<td>-14.13%</td>
</tr>
<tr>
<td>(access)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drop-out rate</td>
<td>-9.24%</td>
<td>-24.95%</td>
</tr>
<tr>
<td>(utilization)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio of administered dose</td>
<td>-4.17%</td>
<td>0.00%</td>
</tr>
<tr>
<td>vaccinator (workload)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suwantika A.A.: Impact of COVID-19 Pandemic in Routine Immunization Programs; consultative work with CHAI under CDS grant

- Highest impact of lowering routine immunization program performance was in high urban population districts – possibility of private health facilities immunization access not being reported

- However, drop out rate was also lower in urban settings (high program utilization) – higher caregivers’ education might lead to more likely completing their children’s vaccination
Mitigating Disruptions

What was done to mitigate disruptions to RI coverage during pandemic peaks?

**What worked?**
Develop of technical guideline for immunization services during COVID-19, immunization related refresher training, and develop of IEC, provided PPE, increase CCE capacity

**what didn’t, why?**
Limited resources: HWs and budget reallocation to tackle to COVID-19 response
Scale of Backlog
Scale of Backlogs

Table of Percentage Zero Dose, Drop-Out, Missed Children

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Zero Dose</th>
<th>Percentage of Drop Out (DTP1-DTP3)</th>
<th>OPV 4</th>
<th>IPV</th>
<th>MR 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>1.8</td>
<td>3.5</td>
<td>5.8</td>
<td>23.0</td>
<td>4.9</td>
</tr>
<tr>
<td>2020</td>
<td>3.2</td>
<td>12.3</td>
<td>13.2</td>
<td>62.3</td>
<td>13.1</td>
</tr>
<tr>
<td>2021</td>
<td>6.8</td>
<td>19.9</td>
<td>19.8</td>
<td>33.8</td>
<td>12.7</td>
</tr>
</tbody>
</table>

Percentage of Zero Dose increase 1.8% in 2019 to 3.2% in 2020. Furthermore, in 2020 and 2021 increase 3 times to 6.8%. Drop-out for antigen DTP 1 and DTP 3, increase almost 6 times in 2021 compared in 2019.

Analysis gap Immunization coverage Based on Drop Out and Zero Dose

the map showing that 25% districts had wide gap immunization coverage.
The key barriers to Immunisation

**Program management and financing**
- Insufficient sub national budgeting for immunization

**Human Resources Management**
- Inadequate supply of health staff
- Miss opportunity – wastage policy

**Vaccine supply, quality and logistics**
- Vaccine stock out
- Inadequate cold chain capacity
- Long distance for vaccine distribution

**Service delivery**
- Multiple injection
- Long distance to health facilities
- Marginalized population

**Coverage and monitoring**
- Lack of defaulter tracking data (unimmunized children’s data was not tracked)
- Not integrating reporting and recording with private health facilities

**Surveillance and AEFI monitoring**
- Reveals outbreak of VPDs (e.g. polio, diphtheria, measles)

**Demand generation**
- Vaccine hesitancy
The nationwide catch-up immunization campaign – National Childhood Immunization Month (BIAN) to address the country’s backsliding in childhood vaccinations for children under the age of 15 y.o for one dose of MR (SIA) and addition of polio immunization for children under the age of 5 y.o (catch up)

Two phase catch-up immunization campaign (BIAN)
- Phase 1 (since May 2022) in 27 provinces
- Phase 2 (since August 2022) – Java islands and Bali

National EPI lead the backlog clearing effort with PHO and DHO lead at subnational level.

- Develop tool for readiness assessment
- Develop of digital application – ASIK
- Multisectoral approach to support BIAN
- Review meeting for phase 1 and preparation meeting for phase 2 especially for high risk areas
Addressing Backlogs....(2)

- **Advocacy meeting** - halal haram issue, multiple injection, vaccine safety and monitoring provinces/districts which has low coverages

- **Routine monthly meeting** took in place to assess catch up immunization campaign coverage

- **Supervision** has been conducted by MoH and supported by international partners.

- **Roles of public, private and independent sectors** to promote benefit of immunisation, provide immunisation services schedule - reaching missed children especially at hard to reach areas, evaluate of the coverage - RCA

Government allocated budget to provide vaccines and operational cost for BIAN activities excl. incentive.
Best Practices & Lessons Learned

Digital reporting & recording through ASIK application - Online monitoring and evaluation

Promote multiple injection during COVID-19 pandemic

Improve public private partnership for immunization

Readiness Assessment (RA) to ensure the preparation already reach 100% in period time
Current Status of Backlogs

**TARGET**

BIAN

36.5 million children

- **Phase 1** (27 million)
- **Phase 2** (9.4 million)

**Source:** BIAN report per 15 Nov 2022

**BIAN Catch-up Immunization Coverage**

- **Phase I**
  - OPV: 63.9%
  - IPV: 97.8%
  - DPT-HB-Hib: 80%

- **Phase II**
  - OPV: 33.6%
  - IPV: 23.8%
  - DPT-HB-Hib: 84.6%

- **National**
  - OPV: 54.2%
  - IPV: 45.8%
  - DPT-HB-Hib: 61.0%

**BIAN is still on-going until end of Dec 2022**
THANK YOU
TERIMA KASIH