

Previous version of country application submitted for IRC [here](#) and pre-screening documents [here](#)

## Gavi Middle Income Countries Approach

### Supporting Narrative for Targeted Interventions Theory of Change

*A completed narrative to accompany the Theory of Change is a required part of the country request for support. It should be completed during and following the development of the Theory of Change. This must be coherent with the other elements of the Support Request, for example the activities contained in the Theory of Change must speak to problems outlined here; the explanation here of how the proposal meets the catalytic principle should be evidenced by demonstrating the inputs of other stakeholders in the Theory of Change; and the explanation here of how the proposal meets the sustainability principle should be backed up by the explanations in the costed workplan and workplan costing detail.*

#### 1. Developing the Theory of Change

*Please describe the process undertaken in country to develop the Theory of Change. Which stakeholders (e.g., government Ministers, senior officials from Ministry of Health, subnational government officials, community leaders, civil society, representatives of the health workforce, members of the population, etc.) were involved in the discussions? How were different voices and (e.g., men's and women's voices, vulnerable populations, etc.) taken into account? What format did the discussions take (e.g., workshops, seminars), how many, and over what time period? Are stakeholders at all levels committed to prioritising zero-dose through this proposed intervention? What evidence is there to support this commitment? How will these stakeholders be held accountable for these commitments? How do you plan to keep these stakeholders engaged over the course of the grant implementation? What role will they play in monitoring progress? What was challenging about the process?*

#### **ANSWERS:**

##### **1.1) TOC development process and timeline:**

The Theory of Change (ToC) for Targeted Interventions (TI) proposed under the Gavi MICs Approach to reach zero-dose (ZD) children and restore routine immunisation coverage in Indonesia was developed by the ad-hoc immunisation technical working group for Gavi MICs (called 'MICs TWG'), led by the Expanded Program of Immunization (EPI) unit within the Ministry of Health (MOH) Indonesia and chaired by Hashta Meyta, Head of Gavi Liaison Office from EPI-MOH (Executive Secretary). The MICs TWG consists of membership from key MOH departments and immunisation partners, namely the World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Development Program (UNDP) and Clinton Health Access Initiative (CHAI).

Through October 2021 and January 2023, MICs TWG conducted multiple meetings and consultations by inviting representatives from various inter-program and inter-sectoral stakeholders to discuss, seek inputs, and align on the key immunisation challenges experienced in recent years and the approaches needed to address them. These meetings were conducted in a hybrid method, with both offline and online participation to accommodate the changing COVID-19 pandemic limitations while providing flexibility for open participation from a broad range of audiences. These key engagements include:

- During Multi Stakeholders Dialogue in February 2021, EPI MOH presented the latest overview of the immunisation situation in the country (including data on immunisation coverage and results from 2020 vaccine acceptance study), identified challenges and recommendations to strengthen routine immunisation programmes in line with MOH's ten strategic pillars.
- Gavi presented the MICs approach in September 2021 in a country partner meeting that was conducted to follow-up later in that same month.

- Between October 2021 and February 2022, dedicated ZD workshops were facilitated by health experts from the University of Indonesia, co-lead by EPI with participation of said immunisation partners. Through these guided discussions, key challenges within the national immunization program were identified and an elaborate root cause analysis was completed. Specific interventions to increase service delivery, vaccine accessibility, and quality were also discussed in the context of the COVID-19 pandemic.
- In February 2022, an online meeting was conducted with Gavi and partners to present the situational analysis and the draft version of the proposed TOC approach. The meeting's agenda and notes are included as part of the supplementary documents ([Document 8, Section 5](#)).
- During Q1-2 2022, the narrative TOC and workplan were drafted and reviewed by the MICs TWG through bi-weekly (or sometimes weekly) meetings at the national level.
- In August 2022, the MICs TWG convened to discuss and develop detailed responses to the pre-screening questions from the Gavi Secretariat team.
- Following Gavi IRC feedback in December 2022, the TOC narrative, Support Detail document, and additional supporting documents were revised further and approved for re-submission in January 2023.

## 1.2) Stakeholders involved:

The full list of participants that attended these TWG meetings are included as part of the supplementary documents. Through stakeholder engagement, the TWG leveraged knowledge and expertise from diverse immunisation and public interest groups at both national and subnational levels, including:

- Relevant government departments/ units within the Ministry of Health such as Surveillance Unit, Pharmaceutical Unit, International Cooperation Unit, Planning and Budgeting Unit, Program and Information Unit, as well as the Health Policy and Technology Unit as well as inter-ministry units such as the Ministry of National Development Planning and Ministry of Home Affairs.
- Civil Society Organisations (CSOs) including medical professional organisations and private sector, such as the paediatric association, midwives' association (IBI), nurse association (PPNI) and religious and community organisations such as Muhammadiyah, Muslimat Nadhatul Ulama (NU), Perdhaki.
- Indonesia's Technical Advisory Group on Immunization (ITAGI) was also consulted and participated in the discussions with the TWG to discuss the country's TOC and approach to targeting ZD population.
- In addition to the wider TWG partners (WHO, UNICEF, UNDP, CHAI), other international development partners such as the World Bank and CDC were also consulted.
- Academic scholars from the University of Indonesia and University of Gadjah Mada were also consulted.

While developing this proposal, the country's stakeholders have made efforts to conduct in-depth discussions with the objective of identifying the ZD population, under immunised children, missed communities, key barriers and their root to design tailored interventions that would address the identified issues as outlined in the MICs activity budget. They have also showcased their commitment on supporting ZD including through a formal Memorandum of Understanding between EPI-MOH and their respective organizations. The consortium of CSOs have committed to improve immunisation outcomes by reaching the country's ZD population. Following there was

a press release published by MOH through Sehat Negeriku (MOH's news portal for all health workers accessible by the public). The country's national commitment towards targeting ZD and immunization backsliding was reflected through the inclusion of routine immunization coverage improvement targets within the National Strategic Plan for 2023. MOH/EPI also plans on revitalizing a communication forum group for immunisation through the continued collaboration with the broader stakeholders and CSO.

### **1.3) Implementation partners:**

Based on these stakeholder engagements and past record of each partner on key immunisation workstreams, the following organisations have been identified as key supporters of the MOH for the implementation and monitoring Gavi's TI support and to work towards achieving the desired impact to restoring immunisation coverage:

**WHO:** As an UN agency for global public health, offering evidence-based guidance and support to countries. A prime example is its focus on evidence-based decision-making to ensure that the Behavioural and Social Determinants (BeSD) study on immunization will be based on the latest scientific evidence and best practices for well-informed policy and programmatic decisions (Budget Activity 3.1). In addition, WHO's staff of international, national and sub-national technical officers and data assistants, are key in assisting the country to develop data driven planning and monitoring. WHO promotes progress towards national strategies and global goals in achieving vaccine preventable diseases (VPDs) control/elimination/eradication. It has a history of improving health outcomes by tailoring its technical assistance to each country's needs and collaborating with national health authorities and other partners (Budget Activity 1.3). Its mandate heavily relies on capacity building health workers and monitoring the performance of service delivery (Budget Activity 2.1). This in turn enables MOH to have the supervisory skills and tools to plan and implement supportive supervision and routine performance monitoring that deter additional immunization coverage backsliding (Budget Activity 1.4).

The organization has been supporting MOH to improve access to quality service through policy and guidance development and dissemination, capacity building of health care workers, monitoring and evaluation. An example is WHO's expertise and experience in conducting workshops on multiple injections workshops due to its expertise in immunization service delivery, extensive knowledge of best practices and international standards, and strong history of providing technical assistance and capacity building support to countries. These efforts will ensure that vaccine hesitancy and missed opportunities are decreased and no longer contribute to ZD population (Budget Activity 1.8).

Its neutral and independent position has contributed to its proven track record in conducting and mediating evidence-based workshops that facilitate constructive discussions and collaborations between stakeholders across various sectors, resulting in effective improvements in immunization program accountability (Budget Activity 6.2). In the context of Indonesia, this includes coordination and collaboration with national stakeholders, such as ITAGI, expert committees, national AEFI committee, and professional organisations. WHO will support the MOH in its implementation of selected TI activities across all 10 selected priority provinces. However, an MOU between MOH and WHO cover all provinces. Hence, beyond this proposal, WHO will support other regions and implement tailored activities where there are similar characteristics (i.e., as indicated by level of DPT1 coverage, absolute number of ZD population, service accessibility, supply side challenges,

etc). The criteria are relevant in targeting the ZD population to mitigate and prevent backsliding in vaccine coverage.

**UNICEF** is committed to the welfare of children through proactive outreach and engagement with a variety of civil society actors to ensure the quality of immunisation programmes and to mobilise broad-based support for immunisation among stakeholders such as private service providers, educators, administrators and media, and religious and traditional leaders. UNICEF teams beyond health/immunisation collaboratively build the engagement with Ministries of Education, Women Empowerment and Child Protection, Finance, and Labour to sustain immunisation programming and expanding immunisation platforms to guarantee equity in coverage for population subgroups beyond early childhood, including adults, pregnant women, mothers and adolescents. The 5 field offices (in Aceh, Surabaya, Makassar, Kupang, and Jayapura) and 2 sub-offices (in Ambon and Maluku) are key to UNICEF's work. UNICEF will communicate to Ministry of Planning and MOH to expand UNICEF's work areas under its MOU to support the MOH in its implementation of selected Gavi MICs TI activities across ten provinces for the ZD children intervention. MOH will propose to Ministry of Planning to expand UNICEF's geographic scope to support the implementation of activities as listed the costed workplan considering MOU between UNICEF and Government of Indonesia. Initiatives will be carried out in tandem with subnational government and civil society partners at both the provincial and district level. In line with UNICEF's equity approach, the program recognizes Indonesia's efforts to "develop from the periphery", while maintaining work in high-population areas such as Java and Sumatra.

UNICEF has well established 5 Field Offices (supporting 9 provinces) with skilled and trained immunization officers. UNICEF also has developed the digital supportive supervision tools that can be access by MOH, PHO, DHO and HF. Regular analysis is provided and shared with relevant partners as part of capacity building process. (Budget Activity 1.4). During UNICEF support to EPI, UNICEF has initiated, supported, and lead the establishment of Private Health Facilities Task Force in coordination with MOH and Private Health Care Facilities and will continue its supports and monitor build the capacity of private health facilities in routine immunization program (Budget Activity 1.12). Also, in UNICEF supporting provinces, number of immunization officers have been trained and skilled to build capacity to other relevant health workers and facilitate workshops/healthcare workers trainings (Budget Activity 2.10, 4.1 and 3.8) on immunisation, program monitoring, and data management (Budget Activity 1.14 and Budget Activity 3.3).

Improve vaccine demand is one of UNICEF's main stream of support to Indonesia's EPI Program, therefore through the years UNICEF has created a well-established network with national and sub-national media, as well as having trained and skilled immunisation and communication officers who can facilitate/support the advocacy (Budget Activity 3.5) as well as to facilitate/build capacity of relevant health workers/local institution (Budget Activity 2.12). UNICEF also has adequate human resources and a strong network that will be benefiting from the engagement of religious/local leaders into the immunisation program (Budget Activity 3.7) The organization also has a mandate to support the Immunization Supply Chain Logistic in Indonesia in which UNICEF has trained and skilled immunisation officers who can facilitate/build capacity of relevant health workers. (Budget Activity 1.3)

**UNDP** has been supporting MOH to ensure efficient and timely supply of vaccines during the COVID-19 pandemic using the SMILE logistic system. UNDP has supported the MoH in providing data from SMILE into the "national COVID19 one data dashboard". SMILE will be continuing its support in routine immunization. Like COVID19, UNDP has helped the transformation among

managers in making decision since they will have access to accurate and real time logistics data on consumption, remaining stock, expiry vaccines in SMILE (Budget activity 1.9).

SMILE has been projected as the only logistic monitoring system within the MoH digital ecosystem, and all information in SMILE will be interoperable with Satu Sehat, ASIK, Digital Inventory National (DIN), Asset Inventory, the National Audit Body, the FDA and other platform build by the Ministry of Health and other Bodies. UNDP will accelerate the design and development process of the data interoperability in close collaboration with the DTO (activity 2.2). There will be a systematic review and knowledge transfer to the MoH, Provincial Health Office (PHO) and District Health Office (DHO) to be in line with the MoH's digital transformation agenda (Budget activity 2.6). Nonetheless, to maintain the quality and robustness of the upgraded SMILE system, SMILE must comply and being reviewed towards its functionality, performance and security. The system review will be conducted annually by the same company who conduct system audit for UNDP India (e-VIN and COWIN) (Budget Activity 2.5).

UNDP has successfully improved and accelerated data use on COVID19 vaccination program among decision makers and logistics managers at the national, provincial and district levels. Through unique approach, UNDP brought together technology, people, and process to strengthen the vaccine supply and availability for mother and child in time. It is important and mostly undermined that the regularly use of the application to perform daily transactions are mostly important and should be continuously encourage with respect to vaccine and logistics management. Field staff of SMILE are extremely crucial to empower, encourage the SMILE users with extensive trainings, monitoring, and handholding throughout the entire process to expand and maintain number of active users and real-time flow of transactions from Puskesmas to SMILE system. These data are important to anticipate stock out situation that will risk vaccine uptake among children, especially ZD children (Budget Activity 1.6).

Today, there has been more than 25,000 users are actively using SMILE COVID19, and the numbers are changing due to rotation and job-division among health workers that may differ from pandemic settings. UNDP aims to continue the success in improving the quality of vaccine to the last mile by requesting NVI funding to install more IoT loggers in remaining states in Indonesia so all will connect in real-time through SMILE application.

SMILE will develop and maintain a real-time dashboard and management of increasing amount of data reported by IoT loggers/devices installed around 5,000 cold-chain in mainly Java, Bali and NTB regions (Budget Activity 1.15). As requested by the MoH, there will also be significant upgrade in SMILE to enable MoH and PHO have an accurate, quick, and systematic tools on annual projection, maximum and minimum number of vaccines from Puskesmas levels. Online and offline training/workshops will be delivered to reinforce and update user knowledge and skills of vaccine annual projection at all levels (Budget Activity 1.1).

There was a strong successful history of UNDP supporting the MoH to improve their systematic approach in monitoring COVID19 vaccine distribution and maintaining optimal stock at all levels by conducting joint monitoring involving other relevant units in the MoH. This activity will be adjusted to routine immunization to rapidly identify and reach for ZD children based on real-time SMILE logistics data that interoperable with ASIK (activity 4.5). Active use and enhancement in SMILE features will ensure uninterrupted vaccine stocks and flow, as well as efficient end to end

management of vaccines in Indonesia. A transformation of vaccine supply chain will improve vaccination coverage to reduce number of ZD children.

**CHAI** as an organisation is committed to the mission of saving lives in low- and middle-income countries. CHAI aligns its program strategies with the partner governments to work in service of their priorities and goals. Since 2017, CHAI has supported the EPI program in Indonesia to strengthen and sustain routine immunisation program performance. At the national level, CHAI works with key stakeholders (e.g. MOH beyond EPI, ITAGI, Ministry of National Development and Planning) as one of EPI lead partners on new vaccine introduction (NVI) and immunization financing. In 2019, CHAI supported EPI and ITAGI to assess Gavi Transition readiness of Indonesia, which highlighted the risks particularly on new vaccines procurement and subnational financing (operational costs of service delivery). The result of this work has been shared with Gavi as supporting document. CHAI has now been requested to conduct another assessment, 3 years later, to understand whether the risks has been sufficiently mitigated following EPI's circular letter to subnational government to increase allocation for immunization– or whether there is more to be done (Budget Activity 5.1).

In addition to its national-level support, through formal MOU with Indonesia MOH, CHAI provides targeted subnational support (up to facility level) in selected provinces. Since the 2019 assessment, CHAI has been supporting selected provinces to identify key immunisation activities that could address local needs, develop costing exercises for planning and budgeting purposes, and map available resources. In Indonesia's decentralized health system, this effort to strengthen subnational government capabilities in carrying out evidence-based planning and budgeting is critical to optimise limited funds towards impact. CHAI will leverage and modify its experience to focus on tailored approach for ZD identification and reach (alongside other priorities like NVI as stipulated by EPI) – across the ZD focal provinces and districts with highest needs (Budget Activities 5.2, 5.4, 5.5, 6.1).

CHAI has extensive experience of establishing dashboard for visibility and monitoring of immunization program, such as through the roll out of web-based platform for cold chain inventory, and dashboard development for NVI readiness assessment and post-launch assessment for PCV and Rotavirus vaccination. These have been rolled out nationally and particularly for cold chain inventory dashboard has been handed over to MOH's Data Center Unit, now fully owned entirely by the government. Therefore, CHAI is well positioned to initiate a performance management dashboard for this grant and pilot it in focal provinces, as a tool to monitor implementation (Budget Activity 4.4). Through this past work, CHAI has also gained visibility into the subnational data practice of EPI. CHAI will expand this relationship with other health units (and beyond, as necessary) to further collaborate on data triangulation to reach ZD (Budget Activities 2.7 - 2.8).

As part of its NVI work, CHAI has also assessed and engaged the community structures, for instance the role of Village Health Volunteers (VHV) to increase uptake of new, underutilized vaccines within the focal provinces. CHAI aims to translate learnings and adapt it towards reaching ZD (Budget Activities 3.6). Sub-nationally, CHAI has also been engaging with private providers (who have been providing these new vaccines through fee-based services). CHAI conducted small-scope assessment of private providers practice in West Java in 2022, developed recommendation, and initiated ongoing coordination meeting between district offices and facilities, both public and private. Through MICs grant, CHAI plans to assess impact, modify and scale up this coordination and planning model (Budget Activity 1.11). Overall, leveraging good working relationship with provincial and district offices in its focal provinces, CHAI can effectively

facilitate consultative workshops and build subnational government capacity to be data-driven, and to test out adapted models of service delivery strategy as needed. CHAI will monitor its effectiveness in reaching ZD and document that as lessons for broader scale up (Budget Activity 1.13).

Within Gavi MICs TI support, CHAI will support MOH to implement selected Gavi MICs TI activities across three provinces (East, West and Central Java) and ensure that the learnings from this work is disseminated more broadly to the benefit of other provinces.

In addition to working within their respective geographic scopes, all implementing partners will also engage in activities at the national level to expand the scope of their support, ensure sustainability, and work towards equitable coverage improvement. Within this grant proposal, partners agreed to focus on 10 priority provinces since 79% of the country's ZD population are within this geographic scope (2021) which will result in the best value for money from this grant.

Coordination and communication across key partners will continue through the MICs TWG. With EPI MOH leadership, the MICs TWG will continue to monitor the progress and implementation of the proposed MICs activities through the following means: (1) regular quarterly meetings, (2) review of the Accountability Framework and the progress of the corresponding workplan of each partner, (3) course correct as needed based on the assessment and measurement of progress. Ad hoc meetings (including with broader stakeholders) will be arranged to address emerging issues that require rapid attention and a joint consultation. A dashboard of ZD work progress will be used as a monitoring tool, which will be developed as needed. Documentation of the lesson learned will be developed and captured for the country's and for cross-country learning.

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**Table 1: List of immunization partners and summary of key areas of work**

In addition to the key areas provided below, please refer to “Annex – 1 Justification of Implementing Partners” that specifically outlines how the proposed activities helps address each objective and how each implementing agency is best positioned to implement said activity.

Agency	Key areas of existing work/ TA support	Contributions towards each objective					
		(1) Improve subnational capacity in planning, implementing and monitoring to catch-up vaccination	(2) Improve routine data quality and data use, including high risk and hard to reach areas, to identify and target zero-dose	(3) Evidence-based demand generation supported by cross sectoral involvement, including private sector, particularly for missed communities	(4) Improve EPI capacity at national and subnational level in vaccine logistic, social mobilization and advocacy for sustainable and equitable immunization coverage	(5) Facilitate sustainable subnational financing for operations of immunization programs	(6) Strengthen coordination to promote shared accountability at national and subnational level
<b>WHO</b>	<ul style="list-style-type: none"> <li>- Develop data driven planning and monitoring</li> <li>- Improve access to quality service through policy and guidance development and dissemination</li> <li>- Capacity building of health care workers, monitoring and evaluation</li> <li>- Strengthen of ITAGI, expert committees, national AEFI committee and professional organisations</li> </ul>	<p><b>Activity 1.3:</b> Technical assistant at subnational level</p> <p><b>Activity 1.4:</b> Supportive supervision activities in WHO supported provinces</p> <p><b>Activity 1.8:</b> Workshops engaging midwives, nurses and doctors</p>	<p><b>Activity 2.10:</b> National and subnational bulletin development and capacity building workshop to improve data analysis skills</p>	<p><b>Activity 3.1:</b> The study of BeSD with 3rd party such as university</p>	<p><i>(No activities listed under this objective)</i></p>	<p><i>(No activities listed under this objective)</i></p>	<p><b>Activity 6.2:</b> Workshops and technical assistant from WHO local consultant</p>
<b>UNICEF</b>	<ul style="list-style-type: none"> <li>- Engagement variety of civil society actors to ensure the quality of immunisation programmes and private health sectors to increase access immunisation services</li> <li>- Collaboratively build the engagement with Ministries of Education, Women Empowerment and Child Protection, Finance, and Labour to sustain immunisation programming</li> </ul>	<p><b>Activity 1.4:</b> Supportive supervision activities in UNICEF supported provinces</p> <p><b>Activity 1.12:</b> Quality improvement of RI implementation at selected private health facilities in 9 UNICEF focused provinces</p> <p><b>Activity 1.14:</b> Post monitoring workshop at selected provinces and districts, including data</p>	<p><b>Activity 2.9:</b> Expand utilization of Human Centered Design (HCD) approach in selected provinces and districts to identify and provide creative and local specific solutions.</p> <p><b>Activity 2.11:</b> Strengthening micro planning incorporating HCD experiences in selected provinces and districts.</p>	<p><b>Activity 3.2:</b> Targeted implementation in hard-to-reach communities, by adapting national communication strategy with costed plan that has been developed in 2022.</p> <p><b>Activity 3.3:</b> Online quarterly survey to monitor caregivers and health workers perception and assess misopportunities.</p>	<p><b>Activity 4.1:</b> Lead regular coordination meeting within the NLWG</p> <p><b>Activity 4.3:</b> Facilitate cold chain inventory update at national, province and district, once annually</p>	<p><i>(No activities listed under this objective)</i></p>	<p><i>(No activities listed under this objective)</i></p>

	<ul style="list-style-type: none"> <li>- Strengthen Cold Chain Equipment (CCE) capacity</li> <li>- Improve communication strategy for immunisation</li> </ul>	<p>review for strengthened service delivery strategies.</p>		<p><b>Activity 3.5:</b> Media advocacy at national and sub-national levels.  <b>Activity 3.7:</b> Strategic engagement with religious leaders to increase vaccine confidence.  <b>Activity 3.8:</b> Facilitate the establishment of Private Health Sector Task Force for immunization</p>			
<p><b>UNDP</b></p>	<ul style="list-style-type: none"> <li>- Provide dashboard and real-time calculator for vaccine projections, minimum and maximum value of vaccines as well as cold-chain capacity at all entities (Health Centers, Health Offices, the MOH).</li> <li>- Having the artificial intelligence embedded in SMILE and all real-time logistic transactions from Primary Health Care available in SMILE will make those features accessible and visible towards more accurate supply-chain management.</li> </ul>	<p><b>Activity 1.1</b> Annual logistic projection at provincial level for DHO  <b>Activity 1.6:</b> Engineers/experts at the national level, SMILE operators at regional level and helpdesk assistance will provide technical assistance to more than 5,700 health facilities in 10 provinces in updating/managing their inventory and discarded vaccines/logistics by digital, as well as in improving the performance and scale of the information system. For the past 2 years there are 430 million doses of vaccines has been recorded through SMILE.  <b>Activity 1.9:</b> Software enhancement by the local software developer, SMS notifications services in any case of inventory and temperature breach, abnormality in stock, nearly expired vaccines; also for experts fee to support the Data Center/Digital Transformation Office in the MoH to ensure smooth process of handing over.</p>	<p><b>Activity 2.2:</b> Assessment, development of public dashboard on routine immunization related data that will be interoperable across related program (e.g. medicines &amp; health supplies, procurement, DIN/the national inventory digital) within MoH's one data platform, maintenance  <b>Activity 2.5:</b> An evaluation conducted by the third party for SMILE and ASIK (the individual-registry platform from the MoH)  <b>Activity 2.6:</b> Guidelines development, enhance &amp; update e-learning platform, video tutorials, travel arrangement.</p>	<p><i>(No activities listed under this objective)</i></p>	<p><b>Activity 4.5:</b> Supportive Supervision, travel arrangement and coaching sessions</p>	<p><i>(No activities listed under this objective)</i></p>	<p><i>(No activities listed under this objective)</i></p>

		<p><b>Activity 1.15:</b> Develop a full scope of work on country guidelines, assessment and development of real-time dashboard on cold-chain capacity at health facility, also to develop a temperature data dashboard where the data will be transmitted regularly from 5,000 cold-chain points.</p>					
<p><b>CHAI*</b></p>	<ul style="list-style-type: none"> <li>- Strengthen overall routine immunisation program performance, including technical assistance at central and subnational to introduce and rapidly uptake new vaccines (NVI) that will be included in the national program</li> <li>- Improve sustainability through evidence-based decision making, strategic planning, program costing, resource mapping, resource mobilization, advocacy and other relevant activities to support central and subnational government in sustaining the immunization program</li> <li>- Promote cross-program/sector collaboration and performance management across key stakeholders to sustain the program through more integrated planning and delivery</li> </ul>	<p><b>Activity 1.11:</b> Integrate private immunization providers coverage data into MOH reporting system, through developing interlinked reporting process between public and private immunization data system; initiate semesterly joint monitoring and data review (involving both public and private in districts of highest needs within CHAI's focal provinces).</p> <p><b>Activity 1.13:</b> Workshop with highest needs districts and PHC to develop action items and follow through recommendations, tailoring service delivery strategy specific for each focal area to restore coverage, including optimizing public private partnership strategy</p>	<p><b>Activity 2.7:</b> Cross-program data triangulation and review meeting with nutrition, MCH, and other relevant units at selected province and districts</p> <p><b>Activity 2.8:</b> Workshop to analyze and disseminate result, engage key stakeholders on action items.</p>	<p><b>Activity 3.6:</b> Routine coordination meeting with targeted community structure and organizations (UKBM) in focal area, specifically PKK/ women association, midwives' association, and village health volunteers/"cadres"; strengthen their community approach and specify strategy for reaching pre-identified catchment population/target groups both urban and rural setting</p> <p><b>Activity 3.9:</b> Workshop to identify and optimize private providers role in restoring coverage and reaching zero-dose; map challenges and opportunities to strengthen partnership; develop strategy for further public-private engagement; Implementing potential model of public-private partnership selected areas.</p>	<p><b>Activity 4.2:</b> Strengthen data review meeting with PHO &amp; DHO in CHAI focal areas to ensure stock availability at districts and PHC level</p> <p><b>Activity 4.3-1:</b> Updating cold chain inventory and functionality tools and guidelines</p> <p><b>Activity 4.3-2:</b> Subnational workshop for data collection and validation by region</p> <p><b>Activity 4.3:</b> Dissemination meeting on cold chain inventory analysis results and alignment on next steps</p> <p><b>Activity 4.4:</b> Dashboard development cost</p> <p><b>Activity 4.4:</b> Workshops/trainings of dashboard use beyond meetings at province level</p>	<p><b>Activity 5.1:</b> M&amp;E and technical support at CHAI focal provinces and districts</p> <p><b>Activity 5.2:</b> Subnational immunization financing review</p> <p><b>Activity 5.4:</b> Workshop, including capacity building on development immunization costing, budgeting &amp; planning tool based on identified activities in microplanning at PHC level on prioritization exercise for immunization program targeting zero-dose and restore RI</p> <p><b>Activity 5.5:</b> Advocacy meeting and intensive monitoring to support prioritization exercise and budgeting strategy for CHAI's focal districts, including collaboration with local universities.</p>	<p><b>Activity 6.1:</b> Workshop to disseminate analysis on identification-characterization-targeting zero-dose and restore RI</p>

\* All implementing partners apart from CHAI will be working across the 10 priority provinces: West Java, Aceh, East Java, Central Java, East Nusa Tenggara, Riau, North Sumatera, West Sumatera, DKI Jakarta and Papua. Under this proposal, CHAI will cover three provinces: East, West, and Central Java

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## 2. Problem statement

Please describe the challenges that the proposed intervention seeks to address. There are a number of tools that countries can refer to when undertaking their analysis. For example:

- The Gavi Zero-Dose Analysis card, noting that not all parts of this are relevant for Targeted Interventions support. Please ask your Senior Country Manager / Country Engagement Manager for support in interpreting the guidance.
- UNICEF Gender and Immunisation Toolkits:
  - A Practical Guide to Integrate a Gender Lens into Immunization Programmes, UNICEF Regional Office for South Asia
  - Integrating Gender in Programming for Every Child in Europe and Central Asia, UNICEF Regional Office for Europe and Central Asia
- World Health Organisation Technical Resources for Improving Immunization Coverage and Equity
  - a. Zero dose children: Using lack of DTP1 as an operating definition for “zero-dose”, how many (and what proportion) zero-dose children are there in the country and where are they located (at the lowest level for which reliable data exists)? Why have these children not been vaccinated? What are the key barriers on both the supply of and demand for immunisation services? How does this intersect with social identities including gender or existing gender-related barriers? How do these reasons vary by location?

You may want to consider the following supply-side and demand-side barriers:

- Service accessibility: travel time or distance to the nearest vaccination point, representation and participation of women in immunisation programme decision making
- Supply chain: vaccine availability/stock levels, cold chain equipment availability/functionality
- Human Resources for Health (HRH): health care worker (male and female) availability, working conditions, salary,
- Behavioural and Social Determinants (BeSD): thinking and feeling, motivation, social processes, practical factors
- Gender-related barriers: financial resources, education and access to information, family decision-making power, mobility, time outside the home (hours, waiting times, etc.), adequacy of services
- Socio-economic barriers: wealth index, maternal education, religion, ethnicity, rate of child marriages

### ANSWER:

#### Zero dose (ZD) communities in Indonesia:

Indonesia uses population estimates for planning immunisation services at all administrative levels, with target population adjusted each year. The target population of surviving infants is over 4.3 million<sup>1</sup>. Of these, over 600,000 infants (614,446) were reported to have missed out on receiving the first dose of DTP-containing vaccine in 2021<sup>2</sup>, based on administrative report data (EPI bulletin data for 2021, version updated as of 15 May 2022).

Over the last five years, the number of ZD children in Indonesia has been increasing. The total number of ZD children from 2017 to 2021 is reported at 1,525,936 children, at an average annual growth rate of 65%. Administrative data is used to monitor immunisation progress and conduct catch-up activities. Given the vast geographic landscape of Indonesia, and the decentralisation of management, planning and delivery of immunisation services, the number of ZD children and the reasons behind it varies drastically across provinces. Regardless, the 10 provinces selected under this proposal consistently come on top of the list as provinces with highest number of ZD children in the last five years. Each province has its characteristics that is likely the main reason behind coverage backsliding, exacerbated by the COVID-19 pandemic in the last few years.

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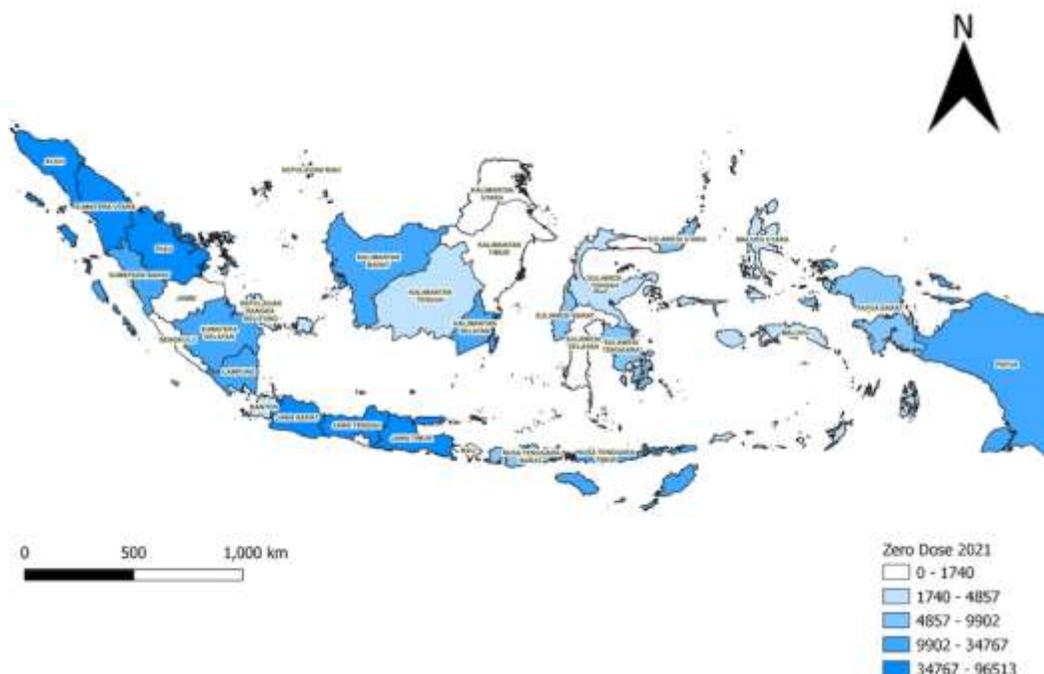
<sup>1</sup> MoH Decree R.I No. 5675/2021 regarding data of the target population for the health development program

<sup>2</sup> National DTP1 coverage rate in 2021 is 84.5% (EPI administrative data)

### Key barriers to immunisation:

Through several consultations during the TOC development, discussions during Gavi Missions, as well as various assessments supported by MOH and development partners (including the Vaccine Acceptance Study and Measuring Behavioural and Social Drivers of Vaccination in Indonesia 2020; quarterly survey of routine immunisation in 2021; and the MOH Strategic Plan to restore immunisation coverage in 2022) key challenges identified and targeted for support in this application are outlined below.

We leveraged consultative meetings and existing data to understand where the ZD children are in Indonesia, and we used several indicators that likely point to their main barriers to immunization services. The primary indicator of province selection is the absolute number of ZD children. We selected nine provinces that have the highest number of ZD children in Indonesia (See Annex 2 for detailed DTP-1 coverage data by province and other indicators for province selection). These provinces have the highest ZD burden nationally (i.e., % over national total). The tenth province selected, Papua, is the eleventh on the list based on its ZD population but has its unique challenges that warrants additional investment for ZD identification and reach. We have therefore selected Papua as our tenth province, with more details as follow. Map 1 below shows the provinces with highest absolute numbers of ZD.



**Source:** EPI administrative data, 2019 - 2021, updated as of 15 May 2022

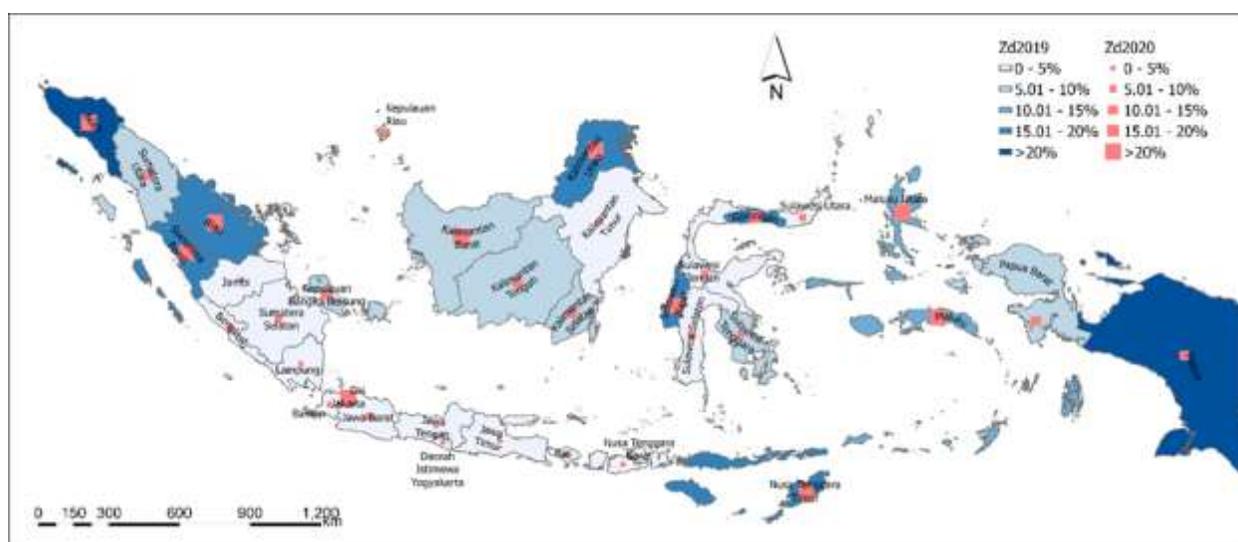
*Map 1: Distribution of zero-dose children by province (in absolute numbers)*

### **Poor accessibility due to hard to reach and remote geographic areas:**

The second indicator to justify province selection is service accessibility. We used proportion of households with access to basic services (i.e., public service to fulfil basic needs such as to

source of clean water and sanitation, energy, as well as health centers and schools)<sup>3</sup>. This indicator serves as a proxy of households' access to public health centers and within it, immunization service. Nationally, Papua came on top with the lowest access (36.9%) followed by East Nusa Tenggara (56.3%), North Sumatera (68%), and Aceh (69%). These provinces are on the outermost part of the country and far less developed than other provinces. Children live within dispersed communities in remote rural areas, making them hard to reach. These provinces have highest concentration of ZD children (i.e., very low DTP1 coverage) as shown on Map 2 below. However, it is worth noting that even households in a few of Java provinces such as DKI Jakarta and West Java (79.5%) has average access to public health services compared to national average (79.3%) despite being the center of Indonesia's economy, highly developed and urbanized. These are likely due to urban poor settlements that are not well-equipped with public infrastructures. Central Java, DKI Jakarta and West Java have these characteristics of relatively low ZD proportion but very high absolute figures because they are highly populous with plenty of urban poor settlements. Their population is dense and highly impacted during peak of COVID-19 transmission where many of the immunisation posts (e.g. posyandu, Puskesmas and hospital) were closed. All of these reflects the complexities Indonesia faces in identifying and reaching ZD children.

**Map 2:** Distribution of zero-dose children by province (in proportion/ concentration)



**Source:** EPI administrative data, 2019 - 2021, updated as of 15 May 2022

Indonesia is an archipelagic state, comprising over 17,000 islands, with 43% of its population living in rural areas<sup>4</sup>. As of 2021, Indonesia has 34 provinces and 514 districts. Some provinces have a lot of islands and mountainous terrain (such as East Nusa Tenggara and Papua), where access issues are predominant. These provinces also have the highest number of districts categorised as 'hard-to-reach' (indicators include distance to health facilities of  $\geq 100$  km and/or having geographic isolator separating community with health facilities such as dense rainforest,

<sup>3</sup> National Statistics Bureau (2021) (weblink [here](#))

<sup>4</sup> National Statistics Bureau, 2021

a minimum 6-hour travel time between the health facilities and district capital, public transport runs only once a week, and more)<sup>5</sup>.

Though accessibility is more favourable in Western Indonesian provinces (with some exceptions in West Sumatra and Riau), rapid urbanisation in this region poses a different type of challenge. Indonesia has experienced a much more rapid urban population growth compared to other Asian countries on average, with the highest number of urban localities centralised in Java.<sup>6</sup> Nearly 60% of Indonesia population now lives in Java Island that has less than 7% of Indonesia's overall land area.<sup>5</sup> Migrant and urban poor are often marginalised communities that face multiple deprivations, with access to immunisation being one of them. Given both the high density of settlements and large migration/ population movement within, accurate population estimates by catchment area are difficult to ascertain.

These spatial challenges - remote, rural and highly concentrated urban areas - rendered public health service delivery difficult to reach in some geographies, missing out on communities from access to basic and free immunisation services.

***Limited supply-side readiness: insufficient cold chain capacity, inadequate human resources capacity, and limited funding lead to suboptimal service delivery at community level:***

The third indicator is supply side readiness, which is measured through proportion of health centers with insufficient cold chain equipment. In Jakarta (13%), North Sumatera (11%), and Riau (10%) at least one in 10 health facilities does not have sufficient cold chain equipment<sup>7</sup> which likely hinder ability to store enough vaccines and provide timely and quality immunization services for the public. We use this as a proxy considering there is no baseline data on DTP stock out, but we expect that through this grant, SMILE roll out will facilitate more information (i.e., frequency and duration of vaccines stock out, more regular CCE functionality reporting) to help us better pinpoint and target ZD children.

The fourth indicator we used is availability of human resources for health i.e., ratio of health care workers including general practitioner, nurses and midwives per 100,000 population. Several assessments have identified human resources for health as a limiting factor in delivering services at community level in Indonesia. Inadequate staffing is a limiting factor in both urban and rural areas. A highly populous province, West Java, has the lowest figure nationally (95). The province's health system is heavily understaffed when compared to national average (413)<sup>8</sup>. Other targetted provinces under this proposal such as Riau (216), Central Java (222), North Sumatera (223), East Java (225), and East Nusa Tenggara (225) also are within top ten provinces with lowest ratio of health workers per 100,000 people in the country.

Immunization services rely on health workers to administer them but severe health worker shortages in these provinces hampers delivery of routine services including immunization, leading to a higher number of ZD children. It is also difficult to restore backsliding, limited defaulter tracking practices makes identification and reach of ZD children difficult. Health workers are often unable to collect and follow through due to lack of bandwidth and technical capacity, there is also little information available to track the children. Strengthening data collection practice, improving the capacity of

<sup>5</sup> Presidential decree No. 63 2022 for updated list, Ministerial Decree 16/2016 for operational definition

<sup>6</sup> Mardiansjah et al. Urban Population Growth And The Growth Of Towns And Cities In Indonesia, 2019

<sup>7</sup> CHAI and UNICEF CCE Inventory Update 2021, supported by UNDP SMILE baseline data 2021

<sup>8</sup> National Statistics Bureau (2021) (weblink [here](#))

available human resources to analyse and use the data for action, and to do it equally across Indonesia have to be the major strategy to reach ZD and improve coverage. The BeSD 2020 also confirmed that health workers and village volunteers are the most trusted for source of information of immunisation. Recommendations include strengthening immunisation recording and reporting practice, increasing technical and management capacity of health workers in both public and private setting, as well as expanding role and improving coordination with village health volunteers to increase community demand for immunisation. All of these have been included in the ToC and proposed activities.

The fifth indicator we used is budget allocation for health. In Indonesia's decentralized setting, each province can translate their commitment to health by allocating local revenue to fund health priorities. Nationally it is stipulated that provincial government should allocate 15% into health spending. Using the Ministry of Finance data as reference, all 10 provinces have allocated less funding for health than they should have, which might have hindered program implementation including immunization service delivery. Papua has the lowest allocation for health (7%) followed by East Nusa Tenggara (8.1%), Riau (8.3%), and Aceh (9.7%). Please refer to Annex 2 for details. We are not able to track allocation to immunization program using only administrative data, so we use this indicator as a proxy to availability of health funding including immunization at province level.

***Low vaccine acceptance in certain communities citing religious/ cultural reasons:***

The sixth indicator is vaccine hesitancy. We used qualitative data from WHO's 2021 Behaviour and Social Determinants of Immunization (BeSD) Study, UNICEF's 2021 Human Center Design Study as well as 2021 Assessment on Impact of COVID-19 pandemic into Routine Immunization. All studies indicated "high vaccine hesitancy" in Aceh, North Sumatera, Riau and West Sumatera which have high concentration of religious communities/population. There are "high hesitancy in certain communities" across Central, East, and West Java, whereas hesitancy is "low" in Jakarta, East Nusa Tenggara and Papua. These studies have been shared with Gavi as supporting documents.

Low acceptance of vaccines related to religious/ cultural reasons (especially concerns around if vaccination is 'halal / haram') persists in some communities in Indonesia, impacting service uptake.<sup>9</sup> In Aceh and West Sumatra, the BeSD study shows that over 35% caregivers reported their religious beliefs did not support vaccination. Around 19% of caregivers in Bireun district in Aceh province indicated that they would not accept any vaccines at all. Reinforcing communication and engagement strategy and collaborating with local leaders and health workers is essential to reiterate the importance of vaccinations.

Past studies have shown that Indonesian children that comes from poorest households, whose mothers had little to no education, are significantly more likely to be un-/under-immunized.<sup>10</sup> Hence, the seventh indicator is poverty. We used percentage of poor population i.e., proportion of people living with less than US \$36 a month, in the province.<sup>11</sup> Papua (27%), East Nusa Tenggara (20%), Aceh (15%) are amongst the poorest provinces. East (11%) and Central Java (12%) also has more poor population than the national average (10%). The eight and last indicator is level of education i.e., % participation in secondary school.<sup>12</sup> Papua has the lowest rate at only 57% compared to

<sup>9</sup> Determinants of vaccine hesitancy in Indonesia, Makara Human Behaviour Studies in Asia, July 2021 ([here](#))

<sup>10</sup> Determinants of Immunization Coverage of Children in Indonesia, Herliana and Douiri, December 2017 ([link](#))

<sup>11</sup> National Statistics Bureau, 2021 ([link](#))

<sup>12</sup> National Statistics Bureau, 2021 ([link](#))

national average of 81%. East Nusa Tenggara (70%) and West Sumatera (78%) also has less participation rate than the national average.

These socio-economic indicators further confirmed our province selection. Children from disadvantaged communities living in these provinces, especially in geographically remote or socially marginalised areas in urban regions, missed out on basic immunisation services even prior to the pandemic. In 2019, DTP1 coverage was 98.2%, leaving 83,335 children without access. In 2021, there were 342 out of 514 districts with DPT-containing vaccine coverage below 95% (admin data, 2021), compared to 225 districts in 2019 (pre-pandemic level).

***Additional challenges during COVID-19 pandemic:***

The disruption of service availability during the COVID-19 pandemic is one of the main contributors for immunisation coverage decline and increase of the country's ZD population. A survey conducted in 2020 on the impact of the pandemic on routine immunisation which found that immunisation services were disrupted in more than 84% of total integrated health service posts (*posyandu*) and 65% of all health centres (*puskesmas*). While many *puskesmas* continue to offer immunisation services during the pandemic, others are either interrupted partially or have shut down the immunisation services completely.

Key demand-side problem have caused significant decrease in coverage values due to the public's fear of COVID-19. This has hindered parents and caregivers from bringing their children to public immunisation posts or health centres. As such, the survey also found a shift in preference to access immunisation services through private facilities during the pandemic (up to 43% of respondents in 2020). However, the scale to which private facilities provide these services remain unclear, and there's likelihood that these services went unrecorded and are misinterpreted as a drop in coverage. Additionally, hoaxes and negative messages spread within the community about immunisation, and concerns of some community members regarding halal/haram of the vaccines persist.

On the extent of public-private linkage: UNICEF assessments conducted in 2020 during COVID-19 pandemic highlighted a significant shift in parents and caregivers' preference to access immunisation services in private health facilities, increasing from 10% in 2019 to more than 43% in 2020<sup>13</sup>. Given the full scale to which private health facilities provide immunisation services is currently unknown (and the permanence of this shift in care seeking behaviour), it is very likely that majority of these services go unrecorded in the immunisation registry, hence mis-interpreted as ZD. This requires the need to strengthen cooperation and collaboration between private and public delivery systems. The 2021-2022 CHAI assessments on private facilities in Bandung City - West Java shows that most private health facilities have not reported their coverage, especially those using privately procured vaccines (non-program vaccine). Improving availability and quality of immunization data, not only within public health facility and outreaches but to also strengthen the data linkage between public-private service point, is seen as critical to identify, understand, and target the un- and under immunized children in Indonesia. We have included activities to assess and address this in this proposal.

In summary, there are several contributing factors that have led to a high number of ZD children in Indonesia. These include poor access to health services especially in hard-to-reach and remote geographic areas; limited-service readiness as can be seen from insufficient cold chain capacity,

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<sup>13</sup> Ministry of Health and UNICEF Indonesia, August 2020, Routine Immunisation for Children during the COVID-19 Pandemic in Indonesia: Perceptions of Parents and Caregivers (weblink [here](#))

inadequate human resources quantity and capacity, as well limited operational funding leading to suboptimal service delivery at community level; low vaccine acceptance in certain religious community, poverty and other social-determinants of health that affect demand for immunizations. These challenges are exacerbated during the pandemic with travel restrictions, service disruptions, increased workload of health workers, and hoax on vaccination among others. To confirm these hypotheses, we have included activities to generate knowledge and better identify, understand, and target the ZD communities.

Given the large and mixed variation in key behavioural factors impacting ZD prevalence in communities, we have included activities to better identify, understand, and target the ZD communities in each province. As a follow up, intervention and specific campaigns will be designed per unique characteristics of the province.

**b. Backsliding in vaccine coverage**

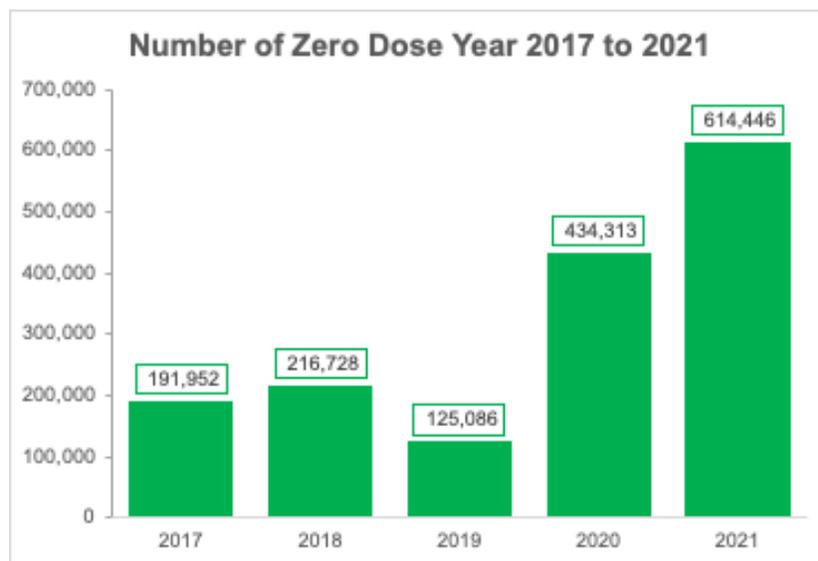
*What is the current level of vaccine coverage of DTP3 in your country at national and sub-national level? How has this changed in recent years? Has the change been uniform across the country or have different areas had different experiences? What has been behind these changes (both on the supply and demand side)? Have there been different drivers at national and sub-national level, and in some areas compared to others? What has been the impact of these changes on the population? Have some groups of the population been affected more or less than others? How and why?*

**ANSWER:**

**Backsliding overview:**

Compared to the period of 2017-2020, there was a significant decrease in immunisation coverage in the year 2021. The combined ZD and under-immunised children is approximately 1,289,876 (614,446 ZD and 675,430 under-immunised children based on not fully immunised with basic antigens) in 2021. Most children live in urban and remote rural (mainly island) settings. Drop-outs between the first and third dose of DTP- containing vaccines increased almost six-fold in 2021, compared to 2019. Graphs below show the rising number of unvaccinated and under-immunized children, by antigen since 2019.

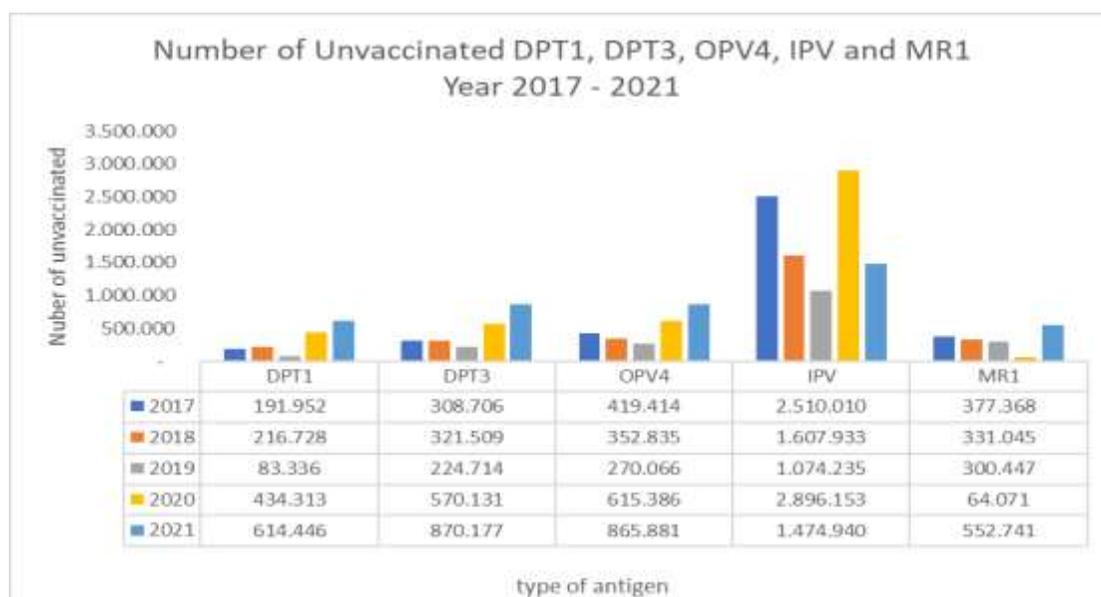
**Graph 1: Number of ZD children year-on-year (2017 - 2021)**



**Source:** Admin Data Imunization Bulletin, Year 2017 to 2021

Between 2016-2021, close to 3.9 million children remained un- or under-immunized, resulting in increased incidence of vaccine-preventable disease cases and outbreaks in the country. Diphtheria, Measles and Rubella are currently endemic in the country, and represent one of the largest burdens across countries in the SEARO region. Recently observed polio cases in Aceh Province signal high risk for outbreaks, especially considering the multiple injections provided at the between 2- to 4- month of age (See Table 2). Multiple injections are needed to deliver DTP, PCV, and sometimes IPV in one visit for catch up. This may have led to low coverage on either antigens (DTP, IPV, PCV). We have included activities to address this in the proposal (e.g., Budget Activity 1.8).

**Graph 2:** Number of unvaccinated by DTP1, DTP3, and other antigens year-on-year (2017 - 2021)



Source: Admin Data Immunization Bulletin, Year 2017 to 2021

**Table 2:** Immunization schedule in Indonesia

Age	Type of Immunization
<24jam	Hepatitis Birth Dose (HB0)
1	BCG, OPV1
2	DTP-HepB-Hib1, OPV2, <b>PCV1, RV1</b>
3	DTP-HepB-Hib2, OPV3, <b>PCV2, RV2</b>
4	DTP-HepB-Hib3, OPV4, IPV, <b>RV3</b>
9	Campak-Rubela1, <b>IPV2</b>
10	<b>JE*</b>
12	<b>PCV3</b>
18	DTP-HepB-Hib4, Campak-Rubela2

It should however be noted that Indonesia was most significantly impacted by the COVID-19 pandemic in 2021 (more so than 2020) when many provinces experienced a double burden of challenges in conducting immunisation sessions to communities and catch-up activities, due to restrictions and fear of infection due to wide-spread community transmission and acceleration of COVID-19 vaccinations. These resulted in existing immunisation resources being stretched, limiting access to vulnerable populations. In addition to service interruptions, there are additional factors that also attributed to backsliding in coverage, which included:

**Demand side-challenges:**

- Vaccine hesitancy among parents and caregivers – particularly with multiple (and more) injections continuously required for routine vaccines – have affected vaccine acceptance, along with vaccine misinformation and hoaxes.
- While there is limited information on estimated missing opportunity on vaccinations nationwide, a 2019 study by JSI with vulnerable urban populations in Jakarta showed that many caregivers were reluctant to bring a sick child for vaccination and more than half of the caregivers were reluctant to have their child receive multiple vaccination shots in one visit due to fear of side effects (such as fever), leading to missed opportunities for vaccinations<sup>14</sup>.
- Male and female children in Indonesia have similar levels of coverage, as seen from both administrative data and survey results. However, low decision-making power of mothers and inconvenient timing of sessions have also been reported as impacting decisions for vaccinations.
- A gradient in immunisation coverage was observed across mother's education level and economic status, with increasing coverage among higher educated and richer subgroups<sup>15</sup>. Both mother's education and economic status demonstrated a marginal exclusion pattern, whereby coverage was considerably lower in the most disadvantaged socio-economic subgroup.

**Supply side-challenges:**

- High risk of local transmission of COVID-19 in the reported health facility areas
- Closing of fixed outreach post (Posyandu) and schools due to the pandemic
- Inadequate understanding of subsequent temporary guidance and regulations for immunisation
- Insufficient funds as a result of diverting support to the outbreak response plan
- Limited number of dedicated vaccinators who were further diverted to tackle COVID-19 pandemic
- Transport disruptions due to travel restriction
- Limited capacity of vaccine storages to keep and maintain routine vaccines immunisation and COVID-19 vaccines at the same time
- Delay of vaccine procurement/shipment and travel restriction hindering subnational distribution (thus resulting in vaccine stock-out of some of routine immunisation vaccines) including lack of vaccine storage management

To restore the country's backsliding in childhood immunisation for children, EPI-MOH organised the nationwide immunisation campaign (known locally as 'BIAN') in 2022 and provided one

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<sup>14</sup> What Makes Vulnerable Urban Populations Hard to Reach in Indonesian cities? Findings and Recommendations from a Diagnostic Immunization Assessment in Central Jakarta, South Jakarta and South Tangerang metropolitan areas, JSI (weblink [here](#))

<sup>15</sup> Explorations of Inequity, Children immunisation, WHO, 2018, Pg 30 (weblink [here](#))

additional dose of measles-rubella immunisation for children under the age of 15 and catch-up routine immunisation for children under age five in all 34 provinces. It was conducted in two phases: Phase 1 (starting May 2022) in 27 provinces and Phase 2 (starting Aug 2022) in 6 provinces in Java and Bali; with a total target of reaching 36.5 million children. The campaign closed with mixed results, administering vaccination of OPV, IPV, Penta (DTP-HepB-Hib) in over five million children, but less than 80% of the coverage target was achieved. Several challenges limited the impact of BIAN including:

- Uneven distribution of financial resources, especially at lower levels. Limited budget allocation for BIAN implementation from the national and provincial levels resulted in insufficient and delayed demand generation and social mobilisation support;
- Delays in vaccine supply distribution to some provinces;
- General work fatigue and low motivation of immunisation health workers due to the recent COVID-19 vaccination campaign; and
- In some areas, reluctance to administer multi-injections at one touch point and demand-side issues which includes suspicion of haram ingredients.

Departing from our understanding and hypotheses on drivers for ZD and backsliding, and incorporating the lessons learned from the implementation of BIAN, our proposed MICs TI interventions are designed to mitigate the above listed supply- and demand- side barriers with main outcomes to:

- Improve subnational capacity in planning, implementing and monitoring of catch-up vaccinations
- Improve routine data quality and data use, including high risk and hard to reach areas, to identify and target ZD population
- Evidence-based demand generation, supported by cross sectoral involvement, including private sector, taking particular attention in missed communities
- Improve EPI capacity at national and subnational level in vaccine logistic, social mobilization and advocacy for sustainable and equitable immunization coverage
- Facilitate sustainable subnational financing for operations of immunization programs

Pandemic-related supply-side challenges such as limited number of health workers and the disruption to outreaches have eased following post-COVID recovery efforts. Indonesia has vaccinated 66% of its population with COVID-19 vaccines (approx. 178 million out of 270 million people) with ongoing rollout of primary and booster series, significantly decreasing the risk of COVID-19 transmission. Remaining system challenges will be addressed through the proposed interventions listed within this application.

Previous version of country application submitted for IRC [here](#) and pre-screening documents [here](#)

### 3. Alignment to the Guiding Principles

*Please describe how the planned interventions meet the guiding principles of the support. Please refer to the guidance for more details on each of the principles.*

Guiding Principle	Answer
<p><b>High Impact</b></p> <p><i>Support provided where the programmatic and catalytic opportunity suggests high sustained impact through reaching zero-dose children. How many zero-dose children can be successfully reached (approximately)? What considerations have been taken to ensure this will be sustainable and equitable (across gender, income, ethnicity etc)</i></p>	<p>Through the proposed MIC activities, the MOH intends on achieving a 15% reduction of ZD children in the first year of its implementation and a total 25%, reaching 1.1 million children by end of the second year in priority provinces with the exception of the region of Papua where due to extremely challenging geographic area and weak local capacity, reductions might be lower. The target for Papua will therefore be 5% and 10% reduction of ZD for Year 1 and Year 2, as listed in the Accountability Framework.</p> <p>To ensure equitable proposal, EPI-MOH have included various stakeholders including the CSOs in the proposal development and selected 10 priority provinces with a mix of provinces having high absolute number of ZD (e.g., densely populated provinces) and high proportion/ concentration of ZD (e.g., border/outermost provinces). For details, see Annex 2 and 3. To ensure sustainability, EPI-MOH worked with partners to include activities that are programmatically sustainable (e.g., are tailored to local needs and context, using Human Centred Design approach, etc) as well as financial sustainable (e.g., determining financial vehicle for continuous effort to identify and reach ZD under Objective 5 – please refer to the TOC/Workplan for details).</p> <p>Some considerations had been taken in proposing the high impact activities, which are:</p> <ol style="list-style-type: none"> <li>a. <b>Data-driven planning</b> has been proven to be effective in achieving immunization targets. It can identify underserved populations, tailor interventions to meet the specific needs of different populations and optimize resource allocation by enabling immunization programs to make informed decisions about how to allocate resources. The ToC emphasizes the need to strengthen the capacity of subnational immunization managers in analyzing and utilizing data, such as coverage and vaccine allocation, to facilitate impactful and sustainable immunization programs (Budget Activity 1.6). The characterization, categorization, and prioritization of catchment areas based on a mix of core indicators performance in province level will also lead to sustained impact, by ensuring ZD are targeted through routine coverage review and planning (Budget Activity 2.8)</li> <li>b. We look to <b>leverage the use of GIS and data triangulation analysis</b> from Maternal and Child Health, Vaccine Preventable Diseases (VPD) surveillance, and other programs to map underserved areas in select province/districts will lead to sustained impact, by ensuring ZD are targeted through coverage review (of routinely collected data) and planning (Budget Activity 2.7).</li> <li>c. <b>Skilled health workers in delivering multiple injections</b> can have a high impact on immunization programs by enabling the administration of multiple vaccines in a single visit, reducing the number of visits needed for catch-up vaccination. It will also accelerate the reduction in immunity gap between the vaccines given in that one health visit, which in the context of Indonesia includes DTP, PCV and IPV vaccines (Budget Activity 1.8).</li> <li>d. <b>By facilitating coordination/advocacy meetings with existing community structures in targeted areas</b> across health programs and sectors, we will ensure</li> </ol>

- that there is evidence-based effort done by the community to identify, target, and mobilize ZD children. This will increase public participation in outreach activities and/or other adapted service delivery approach (Budget Activity 3.6).
- e. **SMILE system to be expanded to monitor availability of vaccines** and other health commodities in addition to vaccine logistics, which will help MOH address challenges on program performance due to the unavailability of stock, delays in reporting, poor logistic planning and inefficiency of vaccine usage (Budget Activity 1.8). SMILE will also support informed planning and decision-making for supply chain management through a comprehensive online and interoperable dashboard that allows for real-time visualization on data analytics and forecasting. This in turn will lead to better vaccine distribution plans, more accurate investments and allocation of cold-chains, and improve vaccine quality to the last mile. (Budget Activities 1.15 and 2.2)
  - f. **Data review meeting on vaccine logistic at subnational level** to ensure stock availability and reduce ZD occurrence due to stock-out will ensure stock data is not just regularly reported through SMILE but also reviewed with actions taken upon for continuous availability of vaccines at service delivery point. Cold chain inventory data will be regularly updated for visibility on storage sufficiency and optimality, so that vaccines are kept at high potency for immunization and outbreak prevention. The health of CCE network is critical to assess feasibility for stock distribution (e.g., to health facilities) and will influence service delivery readiness at HFs and outreaches (Budget Activity 4.3).
  - g. **The development, refinement and dissemination of plans, tools and technical guidelines for action, on cold chain inventory** to ensure review meetings are acted upon will ensure that cold chain inventory data are regularly reviewed by national EPI, partners and relevant stakeholders. Any recommendation and mitigation can lead to collective effort towards the improvement of cold chain network, overall service readiness, and eventually coverage strengthening to target ZD population (Budget Activity 4.3).
  - h. **Mapping the existing flow of funds for immunization programs and identify resources** (public and private sector) including the bottlenecks for service delivery at the district and PHC levels within priority provinces will assist mid-level EPI managers in understanding all the resources available for immunization, particularly operational costs to reach ZD and restore backsliding at subnational level (Budget Activity 5.4). Securing funding for routine immunization through the development of strategic costed plans at the PHC level to specifically target ZD population and restore RI will have a long-term impact in the ability to sustainably finance immunization at the sub-national level (Budget Activity 5.4). Advocacy on budget allocation to support access and increase targeted immunization coverage is also a high impact activity as it ensures that costed plans are well-justified at the subnational level. In turn, budget lines for critical immunization activities including ZD reach could be well-defended, securely allocated and sufficiently funded through domestic funding (Budget Activity 5.5).
  - i. **Package and leverage lessons learned** from implementation at the 10 provinces, corresponding districts, and facilities for advocacy towards sustainability and scalability will lead to sustained impact, by ensuring the successes and failures of Indonesia ZD identification and reach strategy to restore backsliding as a MICs country is well documented and disseminated as lessons learned (Budget Activity 6.1).

<p><b>Targeted</b></p> <p><i>Specifically-targeted scope is focused on the greatest concentration of zero-dose children to maximise impact and value for money. Which geographic areas to target and why? Why are children being missed with routine immunisation in those areas?</i></p>	<p>Ten provinces (out of 34 total provinces in 2021) have been selected for targeted support through Gavi MICs TI funding, namely: West Java, Aceh, East Java, Central Java, East Nusa Tenggara, Riau, North Sumatera, West Sumatera, DKI Jakarta and Papua. Annex 2 includes a table with the latest data on ZD children in these provinces, alongside indicators considered for selection and Annex 4 has additional context that informed our hypothesis on why children are being missed. These are also presented on the maps above.</p> <p>In 2021, the number of ZD children in these provinces alone (sum equivalent to 486,173 children) amounted to 79% of total national burden, hence targeting these geographies would maximise impact and value for money during the intervention period.</p> <p>Technical assistance is targeted to provinces with large number of ZD and provincial risk analysis is applied to identify and prioritize Puskesmas and districts with a large cumulative ZD. (Budget Activity 1.3). Subnational government capacity building to better plan and tailor the service delivery strategy, focusing on districts with greatest concentration of ZD children is going to be conducted through consultative workshops (Budget Activity 1.13). Taking Central Java, DKI Jakarta and West Java as example – under this activity, with urban settlements and high private sectors presence across the three provinces, EPI can tailor the service delivery strategy to target ZD communities in this context (e.g., piloting weekend or after-hour outreaches in slums) as well as increased engagement with private sectors. Similarly, taking West Java as another example, limited availability of health workers could potentially be mitigated by leveraging existing community structures (e.g., village health volunteers, village head) to support with communication, increase public participation in outreach activities (Budget Activity 3.6).</p> <p>These targeted activities will be combined with the high-impact activities such as data triangulation to select best-suited location for outreaches to gain most reach for ZD children. A joint spot check will be conducted with relevant units at the national and provincial level for logistics monitoring. SMILE data in integration with ASIK will be able to show low performance district as basis of location selection for joint spot check (e.g. location with low user activity rate, low availability rate, low active immunization post, etc) (Budget Activity 4.5).</p>
<p><b>Adaptive</b></p> <p><i>Utilise programmatic approaches tailored to local contexts and local drivers of zero-dose children and missed communities. Which locally based approaches make sense based on why these children are missed in each of the target locations? Why do you believe these interventions will succeed? Who is best placed to implement activities (including Technical</i></p>	<p>Partners were chosen following a series of MICs-TWG discussions and EPI's reflection of the country's need, partner's existing area of support, TA strength demonstrated so far, and presence at the subnational level (particularly in targeted provinces), and potential for impact. For further details of each partner's value add, please refer to Section 1 on TOC development under "Stakeholders' ". For more detailed justification by activities, please refer to the Detailed Costed Work Plan of each implementing partner.</p> <p>Activities are defined based on available information on local contexts and challenges identified. Hence the six listed objectives and activities are proposed to address specific geographies to drive direct impact by reducing backsliding and derive learnings applicable which can be scaled and sustained in other settings through future action.</p> <p>For ZD-specific identification and reach, there is currently very limited country knowledge as to which specific interventions will make a difference in which areas,</p>

<p><i>Assistance activities) to have high impact and why</i></p>	<p>hence selected assessments, and use of Human Centered Design (HCD) approaches are proposed to ensure evidence is generated and solutions are crafted at community level (Budget Activity 2.10).</p> <p>Existing programmatic approach e.g., data review meetings, outreaches, community structures - will be utilized and adapted to the local needs based on the result of consultative workshops (Budget Activity 1.13). GIS and other data along with existing routine data will be utilized in reviewing practices to elevate decision-making process to better characterize, categorize, and prioritize catchment areas based on a mix of core indicators that assess performance at the province level. This in turn will better utilize the government's limited resources towards immunization and improve decision making through triangulation. (Budget Activity 2.7 and 2.8)</p>
<p><b>Innovative</b></p> <p><i>Trying new approaches and methods e.g., finding ways to have meaningful engagement of subnational government and local level organisations where effective relationships can be established. What else is new or different? Why is this the right time and place to try this innovation?</i></p>	<p>Use of HCD approaches (including BeSD) is a new and innovative method to understand social processes, motivation, behaviours and practical issues limiting vaccinations. These will provide complementary insights that will strengthen planning and reaching ZD and missed communities.</p> <p>Piloting use of geospatial tools to enable better planning of immunisation and visualising settlements and coverage, particularly in urban settings with poor quality population estimates will enable effective utilisation of immunisation resources (Budget Activity 2.7).</p> <p>The use of new eLMIS system (SMILE) with logistics dashboard will enable improved capabilities for forecasting and data analytics, resulting in an agile cold-chain and logistics system favouring improved supply readiness for immunisation that will improve coverage by assuring that no vaccine opportunities are missed by vaccine mishandling or stockouts (Budget Activities 1.1, 1.6, 1.9, 1.15, 2.2, 2.5).</p> <p>Capturing lessons learnt through new approaches and methods of private sector engagement and governance e.g., data integration involving subnational government and private sectors in middle-income countries, where there is a shift in health seeking behaviour towards private facilities as population income level increase, would be an impactful learning agenda not just for Indonesia but globally. (Budget Activity 1.11)</p> <p>Tailoring service delivery plans following data review and program monitoring for effective RI services at the district and PHC level will lead to ideation of new, innovative ways of reaching ZD children that is tailored to local context including on strengthened public private partnerships. (Budget Activity 1.13)</p> <p>By increasing national and subnational government commitment on immunisation program based on the findings and recommendation of GAVI (Post) Transition Risk Assessment (GTRA). This activity could generate learnings, tools, and processes relevant for other Gavi countries in accelerated transition phase that may want to assess their program health prior to transitioning. Findings could be shared with the Linked network for other transitioned countries (Budget Activity 5.1)</p>
<p><b>Coordinated</b></p> <p><i>Coordination across government and other donors to ensure that their resources flow to</i></p>	<p>Starting from preparation, implementation, and monitoring of activities, MOH will closely coordinate with each partner and other health sectors to ensure high quality activity implementation to reduce ZD children in Indonesia. Forums such as the annual Joint Appraisal (multistakeholder meeting) and quarterly EPI routine review are already</p>

<p><i>complement Gavi's support to reach vulnerable and missed communities</i>  <i>Coordination in efforts with all relevant stakeholders, including subnational and civil society organisation.</i>  <i>What coordination/ strategic efforts are under way? How will the work be coherent and coordinated across all partners?</i></p>	<p>in place to continue effective collaboration with broader health stakeholders (at national and subnational level).</p> <p>MOH will continue to collaborate with the implementing partners for Gavi MICs support through the MICs TWG using regular quarterly meetings. Progress of activities' implementation will be reviewed using the Accountability Framework and corresponding work plan from each partner.</p> <p>Gavi MICs funding will be complementary to the national and subnational funding allocated towards strengthened delivery of routine immunisation and new vaccine introductions in 2022-2024. The new governance structure established through the creation of a new Directorate focused on immunisation access demonstrates MOH's strong commitment to prioritise immunisation access to ZD, underserved and missed communities.</p> <p>There are multiple coordination effort in the proposal to ensure strong buy in from different immunization stakeholders at all levels, which will contribute to strong and sustainable implementation of ZD identification and reach:</p> <ul style="list-style-type: none"> <li>● <b>Establishing an active task force at the subnational level</b> can promote accountability among stakeholders and facilitate monitoring to ensure that all children are reached (Budget Activity 6.2). This includes coordination with community structures across health programs and sectors (e.g., village health volunteers, village head) to increase public participation in outreach activities (Budget Activity 3.6).</li> <li>● <b>The performance monitoring web-based dashboard</b> will promote coordination and accountability across partners at national and subnational level, as well as between MOH and Gavi as donors, by facilitating tracking of grant implementation and provide feedback to the implementation team (Budget Activity 4.4)</li> <li>● <b>Coordination between government and private sectors</b> on coverage data sharing at subnational level will improve understanding of where the ZD children truly are, provide better data visibility for accurate ZD identification and targeting (Budget Activity 1.11 and 3.9).</li> <li>● <b>Promote intra-MOH coordination</b> via Maternal and Child Health, Vaccine Preventable Diseases (VPD) surveillance, and other programs as we leverage GIS and data triangulation to map underserved areas in select province/districts will facilitate regular engagement between EPI and other units within MOH (e.g., disease surveillance, etc), creating foundation for better coordination (Budget Activity 2.7)</li> <li>● <b>Convening data review meetings</b> on vaccine logistic and refining guidelines on cold chain inventory management at subnational level will promote coordination between district offices and health facilities in terms of stock needs and distributions as well as cold chain functionality; between national and subnational EPI; as well as intra-MOH e.g., EPI with the Pharmacy Unit and Planning bureau to target the ZD population (Budget Activity 4.2, 4.3)</li> <li>● Findings and recommendation of GAVI (Post) Transition Risk Assessment (GTRA) <b>will promote inter- and intra- MOH coordination on immunization financing and program sustainability</b> (e.g., EPI with planning unit, procurement unit, foreign cooperation unit, etc) as well as the national and subnational levels; government coordination on funding and resources available for immunization program (Budget Activity 5.1)</li> </ul>
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	<ul style="list-style-type: none"> <li>● Packaging and leveraging lessons learned from implementation at select provinces, districts, and facilities for advocacy towards sustainability and scalability will facilitate coordination across programs within MOH and with partners, to share result and foster joint accountability at national and subnational level (Budget Activity 6.1)</li> </ul>
<p><b>Catalytic &amp; Sustainable</b></p> <p><i>Additional resources and activities are catalysed to address backsliding coverage overall and sustain the gains from Gavi's support, including past the end of the Gavi grant period. What is the specific role of Gavi funding? How does this complement other resourcing? What commitments can <b>government</b>, civil society organisations, and other partners/ donors make to contribute to and sustain the gains, even after the end of the Gavi grant period? How will efforts be integrated into broader PHC and with other services (education, nutrition) as relevant? What is the exit strategy once Gavi support finishes?</i></p>	<p>The government remains the main source of financing for immunisation (USD 391.2 million or 92.8% of total immunisation financing in 2018) which is expected to increase in the next few years. Building on the existing cMYP, a National Immunization Strategy (NIS) 2025-2029 is under development to capture cost projection of immunization program priorities and needs at national and subnational level. It will guide immunisation stakeholder action, facilitating resource mobilisation, public private partnerships, and optimization of local government resources, while a dedicated NIS Technical Working Group (NIS-TWG) will ensure continuous monitoring and evaluation. Furthermore, the NIS-TWG functionality is to strengthen coordination among national stakeholders (including partners) and promote shared accountability in building stronger immunization system. The TWG can also provide additional visibility and transparency on non-government funds that are being offered by partners.</p> <p>Lessons learned from MICs implementation and the continuation of effective interventions could be a part of NIS. A Presidential Decree is being drafted to ensure that routine immunisation remains a priority on the political agenda.</p> <p>In addition, advocacy and socialisation of the government's special allocation fund (DAK) regulations would strengthen implementation and enable more oversight to be given to sub-national levels, potentially leading to better funding security for health programs including immunisation. MOH will also develop technical guideline of Health Operational Cost (BOK) which listed the menu of activities for health program including immunization to ensure the budget will be secured and costed.</p> <p>Implementing partners will also provide policy guidance for the effective use of resources at the subnational level and for facilitating partnerships and resource mobilisation (i.e., from USAID, World Bank, Asian Development Bank, Japan Aid, DFAT, EU and others). Individual registry will include private sector health facilities to improve the visibility of coverage, a co-sharing for expenses on e-LMIS storage on national budget. A comprehensive joint recovery plan is under development to operationalize and mobilise resources for immediate and sustained action: <i>Catch-up</i> on vaccination, <i>Restore</i> immunisation coverage to pre-pandemic levels, and <i>Strengthen</i> the immunisation system through enhancing PHC. Lessons learned from this grant implementation will also inform the joint plan.</p> <p>Service integration is a core component in the cMYP and the subsequent NIS, including: developing and advocating for integrated child health indicators e.g., stunting and immunisation; continuing the good practice of implementing catch-up vaccination for ZD children at Early Child Development (ECD) centres, and school-based immunisation. Trained mid-level managers at provincial (PHOs) and district level</p>

(DHOs) will be trained to effectively formulate immunisation policies, manage financial and human resources and have robust province/district level immunisation plans in place for building long-lasting connections with communities and resilient health systems (Budget Activities 1.5, 4.4 )

All areas of work in SMILE for Immunization will be built upon Health Digital Transformation blueprint of end-to-end of supply-chain management of the MOH, and the recommendations of the Directorate of Immunization, Data Center, and the Directorate of Pharmaceutical Management and Health Services. The customization and implementation of SMILE and its integration into the individual immunization registry application (ASIK) already received complementary funding from MOH. Support from MICS will catalyze the financial support and efforts that are already in place (Budget Activity 1.9)

Sufficient commitments and resources to continue the work of UNDP for SMILE has been provided to SMILE for COVID19, namely:

- Since 2020, the infrastructure/cloud storage for SMILE data in production stage has been provided by the MOH (SMILE domain has been hosted in Data Center, the MoH (<https://imunitasi-logistik.kemkes.go.id/id/dashboard/covid-19>).
- Puskesmas and Health Offices workers have been updating their transactions in SMILE without funding provision from by GAVI or other donor;
- The process of obtaining approval from the Bureau of Planning and Budgeting in the MOH on provisioning the cost of maintenance of remote temperature loggers under "special allocation budget or DAK" is still underway to be effectively implemented by 2024,
- Stock-taking for data validity in SMILE sessions have been undertaken by the Directorate of Immunization and Directorate of Pharmaceutical Management and Health Services.
- The MOH and UNDP will replicate this sustainable works into routine immunization program.

Continuous capacity building of health workers e.g., on ZD identification, reach, community demand for immunization, as well as supportive supervision efforts will be integrated with regular EPI activities and technical assistance e.g., through refresher training and workshops on communication strategy, on injection safety, etc (Budget Activities 1.3, 1.4, and 1.8)

The MICs TWG will also generate and document lessons learned to better identify, understand, and target the ZD communities that might arise in the future (Budget Activities 1.1, 1.13, 3.9 5.5, 6.1).

#### 4. Continuous learning

*If relevant, how do the planned interventions build on any previous attempts to address these challenges (in the same country or learning from another country's experience)? How will you use the information you collect as part of the Accountability Framework to adjust and improve program implementation? How frequently will the data be reviewed and used? Who is responsible to ensure that review and use occurs? How will you integrate community-centred insights from users, beneficiaries and CSOs into your monitoring and learning activities? How will you measure the effectiveness of approaches to addressing gender-related and other demand barriers?*

#### **ANSWER:**

While developing the Gavi MICs TI proposal, the MICs TWG and other immunisation stakeholders have made in-depth efforts to review available evidence on the barriers to ZD and under-immunised populations and designed tailored interventions in target provinces to address them as presented in the MICs activity budget excel file. Monitoring of progress, measuring success and learning what worked and what did not and making needed adaptations is key to ensure sustainable achievements.

With a reported baseline, the Accountability Framework provides a reference indicator that will be used to review progress and course correct as necessary (as described above in section 3). While doing so, few priority questions such as the following will be reviewed closely:

- Are the specific approaches designed to reach ZD and missed communities in targeted provinces working? What worked well, what did not and why?
- What are the key barriers and enabling factors from the demand-side that strengthen the immunisation services' reach? How can this further strengthen community engagement and leverage the engagement of CSOs and collaborate with the private sector to respond to community needs?
- How can delivery strategies be adapted to better reach the target populations? How to ensure data-driven approaches are adopted while planning and designing immunisation sessions?

Improving data quality and real-time reporting, strengthening capacities for use, and adoption of integrated data management systems will strengthen routine monitoring and performance. This has informed the design of our proposal and, as a result, nearly a quarter of proposed activities focus on collecting, analyzing, as well as triangulating data, all of which will be data for learnings to influence subsequent action, such as allowing facilities to adapt their service delivery and community participation strategy.

Efforts to also promote broader digitalisation of immunisation program systems will contribute towards generating quality data in the future. Acceleration of the electronic-based Immunization Logistics Monitoring System (SMILE) application, and the use of digital registry i.e., Indonesia Sehat ku application (ASIK) to support recording and reporting immunisation services, will allow us to have digital records, convert data quickly into information and action for course correction during grant implementation, as well as allowing time-series analyses as needed which will enrich the learning agenda.

Proposed approaches to promote use of HCD in assessments and intervention design in selected provinces (Budget Activity 2.10) and strengthening engagements with CSOs, including medical professional organisations and grass root/ community organisations (Budget Activities 3.4 and 3.6) will help ensure user- and community-centric inputs are generated and incorporated into the programming. Center of Excellence for HCD are spread across the 10 provinces. The HCD

approach is opted to bridge Indonesia's target in immunization coverage and the community's needs and day-to-day practices regarding immunization. For example, HCD will help integrate cultural tradition and take into account religious belief in areas with high vaccine hesitancy to address the challenges contributing to ZD children. Other proposed intervention including strengthening cross-sector collaboration via village health volunteers will complement the effort to have a tailored, locally appropriate strategies. We will identify and document tools, processes, and outcomes i.e., which ZD identification and reach approach works in which context and why, for learnings and scalability.

EPI will receive and review the monthly coverage and stock data. As part of MICs TWG, EPI and implementing partners will jointly monitor the progress of implementation through regular quarterly meetings. MICs TWG led by EPI will review the Accountability Framework and corresponding partners' work plan, measure progress, and take evidence-based action to course correct as needed throughout the course of the grant. Meeting minutes and follow up actions will be captured by SKIPI Gavi, and collective lessons can be shared with broader stakeholders through EPI Review, Gavi Mission session, and even Linked network meetings. Lessons learned from MICs implementation and continuation of effective interventions would be eventually included as part of Indonesia's next 5-year immunization strategic plan through the NIS.

## 5. Supplementary Documents

*Where available, please include in your submission any of the following documents to support the information contained in the Support Request detail workbook and this narrative. Please list the file names of the supporting documents provided and their relevance.*

<b>Document Title</b>	<b>File Name (Hyperlink)</b>	<b>Relevance to Application Proposal</b>
1) Minutes from Meeting of Zero-Dose Workshop on Sept. 29, 2021	<a href="#">Zero dose MoM (note) 29 Sept 2021.pdf</a>	
2) List of participant attendance for Theory of Change Indonesia, Sept. 29, 2021	<a href="#">List of participants attendance ToC Indonesia 29 Sep 2021.pdf</a>	
3) Joint National-International EPI and VPD Surveillance Review Indonesia	<a href="#">joint-national-international-epi-and-vpd-surveillance-review-indonesia.pdf</a>	
4) Indonesia's WHO Factsheet 2020	<a href="#">indonesia-epi-factsheet-2020.pdf</a>	
5) Immunization Bulletin 2017-2021	<a href="#">Buletin imunisasi 2017-2021</a>	
6) Update & Dissemination Comprehensive Multi-Year Plan (cMYP) Indonesian National Immunization Program 2020-2024	<a href="#">Appendix 1. Update of cMYP 2020-2024 english final 03012022.pdf</a>	
7) Minutes of MICS TI Workshop August 10 <sup>th</sup> , 2022	<a href="#">MICs TI Workshop August 2022</a>	
8) Indonesia MICS TI Workshop Materials and Attendance Lists	<a href="#">Hyperlink to holder containing documents</a>	
9) Draft ministry of Health Decree No. 13 Year 2022 on Ministry of Health National Strategy 2022-2024	<a href="#">RENSTRA PMK No. 13 Th 2022 ttg Rencana Strategis Kemenkes Th 2020-2024-signed</a>	
10) Factors Affecting Childhood immunization in Indonesia	<a href="#">Hyperlink to WHO's website</a>	
11) Updated comprehensive multi-year plan (cMYP) 2020-2024 in July 2022	<a href="#">CMYP 2022-2024.pdf</a>	
12) MOU between MOH and consortium of CSOs	<a href="#">Hyperlink to folders containing MOUs</a>	

**Additional information supporting this application can also be found on this Google Drive folder ([hyperlink](#)).**

Previous version of country application submitted for IRC [here](#) and pre-screening documents [here](#)

**Annex 1:** Justification of Implementing Partners (hyperlink to document found [here](#) ←PLACEHOLDER – delete after inserting hyperlink to document within GoogleDrive folder.)

**Annex 2:** Indicators for province selection. (*The 10 priority provinces are highlighted in blue*)

No.	Provinces	DTP 1 (%)*	Total Number of Zero Dose*	% of household with access to basic services**	Ratio of health workers per 100,000 population**	Percentage of poor population**	Province allocation for health
1	ACEH	49.9	50,869	69.31	413	15.4	9.7%
2	NORTH SUMATERA	85.0	40,066	68.22	223	8.8	10.2%
3	WEST SUMATERA	68.2	32,369	82.09	260	6.3	11.7%
4	RIAU	69.2	38,364	74.93	216	7.1	8.3%
5	JAMBI	99.0	631	73.41	369	7.9	
6	SOUTH SUMATERA	86.1	22,287	75.28	266	12.8	
7	BENGKULU	94.8	1,740	78.83	440	14.8	
8	LAMPUNG	89.6	14,486	80.69	183	12.1	
9	BANGKA BELITUNG	84.5	3,844	89.44	368	4.8	
10	RIAU ISLANDS	83.3	7,512	83.77	282	5.9	
11	JAKARTA	64.1	62,356	79.52	541	4.7	10.5%
12	WEST JAVA	92.3	60,974	79.49	95	8.2	12.8%
13	CENTRAL JAVA	87.5	60,614	85.81	222	11.5	10.4%
14	DI YOGYAKARTA	97.3	1,089	87.54	373	12.4	
15	EAST JAVA	83.1	96,513	81.88	225	11	12.1%
16	BANTEN	98.8	2,531	80.27	110	6.6	
17	BALI	98.8	791	91.3	342	4.6	

18	WEST NUSA TENGGARA	93.7	6,192	75.1	574	14.0	
19	EAST NUSA TENGGARA	79.2	24,504	56.3	225	20.7	8.1%
20	WEST KALIMANTAN	80.2	17,445	74.94	258	7.0	
21	CENTRAL KALIMANTAN	90.8	4,097	79.63	377	5.2	
22	SOUTH KALIMANTAN	85.1	10,500	87.16	281	4.7	
23	EAST KALIMANTAN	97.3	1,656	78.03	350	6.4	
24	NORTH KALIMANTAN	86.0	1,740	87.73	414	7.1	
25	NORTH SULAWESI	83.5	6,263	84.58	353	7.6	
26	CENTRAL SULAWESI	93.0	3,918	82.23	403	12.6	
27	SOUTH SULAWESI	102.9	-3,999*	89.08	284	8.7	
28	SOUTH-EAST SULAWESI	87.2	6,969	85.69	386	11.7	
29	GORONTALO	95.4	870	86.87	346	15.5	
30	WEST SULAWESI	81.3	4,954	76.25	256	11.6	
31	MALUKU	85.6	4,833	79.84	342	17.1	
32	NORTH MALUKU	88.0	2,772	81.21	327	6.6	
33	WEST PAPUA	73.2	5,152	73.71	432	21.8	
34	PAPUA	68.9	19,544	36.97	266	27.1	6.9%
<b>INDONESIA</b>		<b>85.9</b>	<b>614,446</b>	<b>79.3</b>	<b>413</b>	<b>9.9</b>	<b>15%</b>

**Source:** \*EPI Administrative data 2021, updated as of 15 May 2022. Above 100% and negative zero dose of South Sulawesi province is related to larger local denominator compared to national estimation.

\*\* All other indicators are from National Statistics Bureau, 2021

Previous version of country application submitted for IRC [here](#) and pre-screening documents [here](#)

**Annex 3:** Table with total surviving infants and number of zero dose children, in target provinces, 2021

Gavi MICs TI Target Province (name in English)	Total surviving infants	Number of ZD children	Characterization for province selection
<b>ACEH</b> (Aceh)	101,524	50,869	High absolute number and concentration of ZD, low vaccine acceptance, amongst the poorest provinces, low household access to health services, low allocation for health
<b>SUMATERA UTARA</b> (North Sumatera)	267,536	40,066	High absolute number of ZD, low vaccine acceptance low household access to health services, insufficient cold chain equipment, low ratio of human resource for health
<b>SUMATERA BARAT</b> (West Sumatera)	101,869	32,369	High concentration of ZD, low vaccine acceptance, less school participation
<b>DKI JAKARTA</b> (DKI Jakarta)	173,746	62,356	High absolute number of ZD, highly populous with plenty urban poor settlements so low household access to services in some areas, insufficient cold chain, high private provider presence
<b>JAWA BARAT</b> (West Java)	791,643	60,974	High absolute number of ZD, populous with plenty urban poor settlements so low household access to services in some areas, high private provider presence, lowest ratio of human resource for health nationally
<b>JAWA TENGAH</b> (Central Java)	483,479	60,614	High absolute number of ZD, populous with plenty urban poor settlements, low ratio of human resource for health
<b>JAWA TIMUR</b> (East Java)	572,541	96,513	High absolute number of ZD, populous with plenty urban poor settlements, low ratio of human resource for health
<b>NUSA TENGGARA TIMUR</b> (East Nusa Tenggara)	118,060	24,504	High concentration of ZD, remote rural with prominent access issue, low household access to services, low ratio of human resource for health, less school participation
<b>PAPUA</b> (Papua)	62,824	19,544	High concentration of ZD, remote rural with prominent access issue, low household access to services, low ratio of human resource for health, low allocation for health, poor population, less school participation
<b>RIAU</b> (Riau)	124,759	38,364	High absolute number of ZD, low vaccine acceptance, low ratio of human resource for health, insufficient cold chain, poor population

**Source:** EPI Administrative data 2021, updated as of 15 May 2022

**Annex 4:** Informed hypotheses on why children are being missed are listed for each of these 10 provinces (also submitted as part of 2022 pre-screening response). Refer to the following [link](#) for additional data.

Kindly note that while data sources/year used below may be different from what is used for the proposal narrative and other annexes, there is no significant difference and each province characteristics remains the same.

<b>Priority Provinces</b> <i>(2021 Administrative Data)</i>	<b>Service Accessibility</b>	<b>Supply Side</b>	<b>Human Resources for Health (HRH)</b>	<b>Behavioural and Social Determinants (BeSD)</b>	<b>Other Barriers</b>	<b>Socio-economic Barriers</b>
<b>Aceh</b> DTP-1: <b>49.9%</b> ZD: <b>50,869</b>	Varies among districts and health centres. Majority are accessible.	21 of 356 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021).  Suboptimal local government support for immunisation programs <b>(true for all other priority provinces)</b>  Insufficient enforcement and adherence to immunization SOP <b>(true for all other priority provinces)</b>	Ratio: 409 HWs per 100.000 population (MD, 3and Midwives) – based on National Statistic Agency 2018	More attention is needed to position vaccination as a valued social norm in Aceh. Fathers must be engaged. Particular attention is needed in Aceh, where 19% of caregivers indicated they would not accept any vaccines at all (Measuring BeSD on Immunization in Aceh and West Sumatera study, 2020)	Low vaccine acceptance related to fear of fever post vaccination and halal haram issue and lack of understanding on the benefit of immunisation  (Based on National Vaccine acceptance study, 2021) by Unicef	15.4% - poor people (based on Indonesia's health profile – July 2021)
<b>Daerah Khusus Ibukota Jakarta</b> DTP 1: <b>64.1%</b>	No geographically hard to reach area. However, the population in urban slum areas may face	43 of 336 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in	Ratio: 517 HWs per 100.000 population (MD, Nurse and Midwives) – based on National	Not yet conducted, propose to insert in GAVI MIC (WHO)	CHAI: We may not have accurate information on population estimates because of high	4.6% - poor people (based on Indonesia's health profile – July 2021)

<p>ZD: <b>62,356</b> (WHO)</p>	<p>barriers to access health services.</p>	<p>National Cold Chain Roadmap 2021),</p> <p>Many of the poor in urban slums are local migrants from outside the city, which may not be reached by the health system as they are seen as illegal citizens.</p>	<p>Statistic Agency 2018</p>		<p>migration or movement – this influences the denominator and coverage calculation.</p> <p>Children from urban slums could also be missing administrative documents including vaccination records, making it hard to validate their age and the need to catch up.</p> <p>Another challenge would be the high number of people accessing services through private sectors including for child immunisation, so the high zero dose figure reported could be an underreporting issue.</p>	<p>The poorest community group may prioritise their time to earn a living instead of prioritising their children health</p>
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<p><b>West Java</b> DTP 1: <b>92.3%</b> ZD: <b>60,974</b> (WHO) The highest populated province (49.4 milion)</p>	<p>Varies among districts and health centres. Majority are accessible.</p>	<p>81 of 1087 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021) (CHAI)</p> <p>As the densest province in the country, West Java should achieve a high immunisation coverage to reduce the total absolute # ZD children.</p>	<p>Ratio: 93 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>8.4%- poor people (based on Indonesia's health profile – July 2021)</p>
<p><b>Central Java</b> DTP 1: <b>87.5%</b> ZD: <b>60,614</b></p>	<p>Varies among districts and health centers. Majority are accessible.</p>	<p>36 of 876 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021).</p>	<p>Ratio: 218 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>11.8%- poor people (based on Indonesia's health profile – July 2021)</p>
<p><b>East Java</b> DTP1: <b>83.1%</b> ZD: <b>96,513</b></p>	<p>Varies among districts and health centers. Majority are accessible.</p>	<p>34 of 967 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021)</p>	<p>Ratio: 219 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>11.4%- poor people (based on Indonesia's health profile – July 2021)</p>

<p><b>East Nusa Tenggara (NTT)</b> DTP1: <b>79.2%</b> ZD: <b>24,504</b></p>	<p>Islands setting, more than 30% are hard to reach areas</p> <p>13 of 22 districts are categorised as hard to reach district (Presidential decree No.63 Year 2020)</p>	<p>21 of 399 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021)</p>	<p>Ratio: 223 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>21.2%- poor people (based on Indonesia's health profile – July 2021)</p>
<p><b>Papua</b> DTP1: <b>68.9%</b> ZD: <b>19,544</b></p>	<p>Mountainous setting, more than 60% are hard to reach area</p> <p>9 of 29 districts are categorised as hard to reach district (Presidential decree No.63 Year 2020)</p>	<p>15 of 416 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021).</p>	<p>Ratio: 264 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>26.8%- poor people (based on Indonesia's health profile – July 2021)</p>
<p><b>Riau</b> DTP1: <b>69.2%</b> ZD: <b>38,364</b></p>	<p>Varies among districts and health centers. Majority are still accessible, using speedboats Consists of 2,408 islands, 70% are populated</p>	<p>25 of 239 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021)</p>	<p>Ratio: 211 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>7.0%- poor people (based on Indonesia's health profile – July 2021)</p>

<p><b>West Sumatera</b> DTP1: <b>68.2%</b> ZD: <b>32,369</b></p>	<p>Varies among districts and health centers. Majority are accessible</p> <p>1 of 19 districts are categorised as hard to reach district (Presidential decree No.63 Year 2020)</p>	<p>15 of 278 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021).</p>	<p>Ratio: 253 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>High confidence in vaccine benefits. Immunization believed to be safe, but less faith in vaccine efficacy. (Measuring BeSD on Immunisation in Aceh and West Sumatera study, 2020)</p>	<p>N/A or unknown</p>	<p>6.5%- poor people (based on Indonesia's health profile – July 2021)</p>
<p><b>North Sumatra</b> DTP1: <b>85.0%</b> ZD: <b>40,066</b></p>	<p>Varies among districts and health centers. Majority are accessible</p> <p>4 of 19 districts are categorised as hard to reach district (Presidential decree No.63 Year 2020)</p>	<p>65 of 611 primary health centers have insufficient cold chain capacity (Cold Chain Equipment Capacity Assessment, 2021 in National Cold Chain Roadmap 2021).</p> <p>In adherence and insufficient enforcement in immunisation SOP application in some districts.</p> <p>(A CCE inventory of the country is ongoing. Report will be updated).</p>	<p>Ratio: 218 HWs per 100.000 population (MD, Nurse and Midwives) – based on National Statistic Agency 2018</p>	<p>WHO: Not yet conducted, proposed to insert in GAVI MIC</p>	<p>N/A or unknown</p>	<p>9.1%- poor people (based on Indonesia's health profile – July 2021)</p>