DELIVERING ESSENTIAL NUTRITION SERVICES THROUGH COMMUNITY ACTION IN INDONESIA

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Abbreviations and acronyms

APBDes	Anggaran Pendapatan dan Belanja Desa (Village budget)
BKB	Bina Keluarga Balita/Family Development Programme
BKBHI	Bina Keluarga Balita Hoslistik Integratif/Holistic Integrative-Family Development Programme
BKKBN	Badan Kependudukan dan Keluarga Berencana Nasional (National Family Planning and Population Board)
BMI	Body Mass Index
CHS	Community Health System
CHW	Community Health Worker
CHW-AIM	Community Health Worker Assessment and Improvement Matrix
COVID-19	Coronavirus Disease
DNI	Direct Nutrition Intervention
ECD	Early Childhood Development
ECE	Early Childhood Education
GDP	Gross Domestic Product
IYCF	Infant and Young Child Feeding
IQA	Implementation Quality Assurance
Kader	Community Health Volunteers, Usually Associated with Posyandu
KPM	Kader Pembangunan Manusia - Service providers for Human Development
KP Ibu	Kelompok Pendukung Ibu (Mother Support Group)
HI	Holistic Integrative
MAM	Moderate Acute Malnutrition
MHPSS	Mental Health and Psychosocial Support
MSG	Mother Support Groups
MUAC	Mid-Upper Arm Circumference
PAUD-HI	Pendidikan Anak Usia Dini – Holitik Integratif/ Holistic Integrative - Early Childhood Education
Kemendes PDTT	Kementerian Desa, Pembangunan Daerah Tertinggal dan Transmigrasi (Ministry of Village, Development of Disadvantaged Regions, and Transmigration)
PKK	Pembinaan Kesejahteraan Keluarga (Family Welfare Movement/Empowerment)
Pokja	Kelompok Kerja (Working group)
Pokjanal	Kelompok Kerja Operasional (Operational working group)
Polindes	Pondok Bersalin Desa (Village maternity facilities)
Poskesdes	Pos Kesehatan Desa (Village health post)
Posyandu	Pos Pelayanan Terpadu (Integrated service post)
Puskesmas	Pusat Kesehatan Masyarakat (Community Healthcare Centre)
Pusling	Puskesmas Keliling (Mobile health unit)
Pustu	Puskesmas Pembantu (Auxiliary Puskesmas)
Rastra	Beras Untuk Keluarga Pra-Sejahtera (Rice subsidy programme)
Rifaskes	Riset Fasilitas Kesehatan (Health facility survey)
Riskesdas	Riset Kesehatan Dasar Nasional (National Basic Health Survey)
SBCC	Social and Behavior Change Communication
SAM	Severe Acute Malnutrition
SSGI	Survei Status Gizi Indonesia (Indonesia Nutritional Status Survey)
Stranas Stunting	Strategi Nasional Percepatan Pencegahan Stunting-(National Strategy to Accelerate Stunting Prevention)
UNICEF	The United Nations Children's Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
1,000 HPK	1,000 Hari Pertama Kehidupan -(national action to prevent child stunting during the first 1,000 days of life)

Glossary of terms

BKB (Bina Keluarga Balita) is a programme initiated by BKKBN (National Family Planning and Population Board) to increase parents' and other family members' awareness and knowledge of a child's growth and development.

For this report, **service providers or cadres** refer to individual contributors to the community health system (such as Kader, KPM, and ECE/PAUD teachers).

Community-based health platform is a platform for community empowerment in the health sector that is formed based on community needs and managed by the community, with support from the health sector and other relevant sectors and stakeholders. The community-based health platform includes Posyandu, Polindes, and Poskesdes.

Guru PAUD (ECE teachers) are professionals whose job is to plan and implement the learning process, assess learning outcomes, and provide guidance, care, and protection for children in early childhood education centres.

Kader is a community member chosen by the community and trained to mobilize and empower the community on health-related issues. Kader usually supports Posyandu services.

KPM (Human Development Service providers) KPM are selected community service providers who have concerns and are willing to dedicate themselves to playing a role in human development in the village, especially in monitoring and facilitating the convergence of stunting reduction (link: https://stunting.go.id/buku-saku-kader-pembangunan- manusia-kpm/).

PAUD (Early Childhood Education) is a level of education before primary education which is a coaching effort aimed at children from birth up to the age of six years and is carried out through the provision of educational stimuli to help physical and spiritual growth and development that supports children to enter further education.

PAUD-HI (HI-ECE) is a holistic early childhood intervention that includes nutrition and health, education and care, and protection services to optimize all aspects of child development, which are carried out in an integrated manner by various stakeholders at the community, local government and central levels.

Pusat PAUD (Early Childhood Education Centre) is a prominent place or facility for the care and development of early childhood education, intended for children aged 0 to 6 years, which facilitates child development activities and a substitute role for forms of care for children whose parents are working.

Polindes is a community-based health platform established by the village government, focusing on maternal and child healthcare.

Poskesdes is a community-based health platform established by the village government to increase access to primary health care for village communities. Trained health workers deliver it.

Posyandu is a community-based health platform established by the village government focusing on health promotion interventions with support from health workers.

Puskesmas is a government primary healthcare facility providing community and individual healthcare focusing on promotion and prevention efforts. Puskesmas is located at the sub-district level.

SEMBAKO are nine types of basic needs of society according to the Decree of the Minister of Industry and Trade Number 115/MPP/Kep/2/1998 dated 27 February 1998.

For this report, service providers or cadres refer to individual contributors to the community health system (such as Kader, KPM, and ECE/PAUD teachers).

This report encompasses a comprehensive overview of community-based nutrition service providers, including those integrated within the community health system as well as other cadres and platforms.

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EXECUTIVE SUMMARY

The Indonesian nutritional status survey (SSGI 2022) shows that the national prevalence of stunting has been steadily declining (from 30.8 percent in 2018 to 21.6 percent in 2022). Child wasting prevalence has also been steadily declining from 10.2 percent to 7.7 percent, of which 1.3 percent are severely wasted. Indonesia still has the second-highest number of children under five affected by severe wasting globally. These issues are more prevalent among low-income, rural, and marginalized communities. However, efforts are being made through the pro-poor programme as outlined in the National Strategy to Accelerate Stunting Prevention (2018-2024), and subsequently, indicators and annual targets for stunting and wasting have been developed and are included in the National Medium-Term Development Plan 2020–2024 (RPJMN) with targets to reduce the prevalence of stunting to 14 percent and wasting to 7 percent by 2024.

One of the ways that Indonesia has addressed undernutrition is through the delivery of nutrition services at the community level, Posyandu, supported by community health service providers, community groups and platforms. They are crucial in extending health and nutrition services' reach, access and equity, often being the first point of contact. Community platforms are equally important in transforming social norms and mobilising collective community action through community health committees, leadership structures and social accountability mechanisms.

While the Posyandu programme has been successful, recent evaluations have identified areas that need improvement to expedite the reduction of undernutrition (stunting, wasting, underweight and micronutrient deficiencies). Specifically, the community-based system for nutrition actions needs reform, and Kader's workload and incentive structure need to be addressed.

STUDY AIM

In this study, we aimed to understand the current roles of existing community platforms and service providers in delivering nutrition interventions to inform policy and programmatic actions in leveraging community-level service providers to scale up nutrition interventions in Indonesia.

METHODS

We conducted an extensive desk review of policies, guidelines and programmes identified in a call for documents. We sought to understand the range of service providers, platforms, and programmes currently functioning at the community level in Indonesia and identify their programmatic characteristics. We compared these to international normative guidance and best practices to determine their relative strengths and weaknesses. We then conducted a functionality assessment that explored how the predominant programme, the *Posyandu* platform and *Kader*, compares to international standards in practice to inform reinforcement activities that might lead to its improved effectiveness. Additionally, we mapped out all direct nutrition interventions in community service packages to identify gaps and areas where services could be reinforced.

KEY FINDINGS

COMMUNITY PLATFORMS AND CADRES

Finding 1: Three community platforms are critical in delivering nutrition services in Indonesia for children under five years. These include the integrated service post (Posyandu) , Early Childhood Education - Holistic Intergrative (HI-ECE) interventions (Pendidikan Anak Usia Dini-Holistik Intergratif/ PAUD HI) and Mother Support Groups (MSGs). Of the three platforms, *Posyandu* and PAUD-HI are the most sustainable platforms for scaling up the delivery of nutrition services at the community level. The Kader Pembangunan Manusia (KPM) initiative, although not a discrete platform on its own, plays a vital coordination role across community platforms. These platforms and community-based service providers operate within a supportive policy environment and enjoy strong community support and participation. The platforms and workforce service providers are inextricably linked in their community work, often with the same cadre.

Finding 2: Less than 50 per cent of essential nutrition interventions are delivered through community platforms and programmes in Indonesia. The formal health sector professionals in primary healthcare centers *(Puskesmas)* and maternity facilities *(Polindes)* are primarily responsible for providing nutrition services. Village midwives play a significant role at the Polindes level, and a more comprehensive range of health professionals (doctors, nurses, midwives, nutritionists) are stationed at the Puskesmas level. The health workforce's population coverage remains low as Puskesmas covers numerous villages and tens of thousands of people. It is unlikely that preventive interventions will reach the most vulnerable who don't participate in the formal health sector.

Finding 3: The KPM is a promising approach to promoting convergence and enhancing coordination of nutrition interventions across the various community platforms. The existing linkages across the platforms are a great strength. However, it's essential to ensure there is no overlap and duplication of activities, which might add to the workload of the community-based service providers. The KPM can promote convergence and enhance coordination, encouraging community ownership and participation. The workforce living in the community can support PAUD-HI and MSG activities and work with Posyandu to provide oversight and advocacy for nutrition activities.

Finding 4: Posyandu Kader's effectiveness could be further enhanced by developing a minimum service package of interventions. Although the Posyandu Kader provides most nutrition interventions amongst the community-based service providers, they only offer 40 and 50 per cent of essential nutrition services for pregnant women and children under 5, respectively. Additionally, there is a considerable variation in providing health and nutrition services for children under five at the Posyandu. For example, only 35 per cent of Kader conducted any home visits in the last month, counselling on healthy diets during pregnancy and exclusive breastfeeding was reported to be highly available at Posyandu (90 per cent and above), but counselling on early initiation of breastfeeding and availability of classes for pregnant women were reported to be much less available (3 per cent and 30 per cent respectively).

Finding 5: Harmonization of training, reporting systems, supervision, and quality assurance approaches across the community platforms could significantly enhance their effectiveness. Standardized training curricula exist for all community-based service provider categories except for the KPM. However, there is no standardized service delivery package for any service providers, which could be essential in ensuring comprehensive coverage for essential nutrition interventions. Since 2022, MoH has introduced 25 basic competencies for cadres covering the life cycle, including Posyandu management, recording, reporting, and home visits. These 25 basic competencies have been widely disseminated since early 2023 and Posyandu Kaders in several regions have begun to receive training. Each platform also has its independent reporting system, which could lead to duplication in reporting if not harmonized. Additionally, current reporting by all the community-based service providers is mainly for upstream reporting requirements, but the data collected could be helpful for local planning and community mobilisation.

Supportive supervision and quality assurance of community service delivery in all three platforms need strengthening. Only the MSG platform has a standardized supervision format with coaching, but supervision is often light touch. Posyandu Kaders are supervised by midwives and health staff from Puskesmas (e.g., nutritionists and nurses) during group sessions with limited coaching and mentoring.

NUTRITION INTERVENTIONS

Finding 6: There are critical gaps in services for early detection and referral of children with wasting, identification, and support of infants at risk of poor growth and development, and their mothers across all platforms. Although coverage of wasting services is on the rise, the lack of inclusion of mid-upper arm circumference (MUAC) screening, including supporting families to measure the MUAC of their children (Family-led MUAC,) means that uptake will continue to be low without significant community mobilisation. At the time of data collection for this study, there was no cadre supporting the management of MAM, except for providing supplementary food in biscuit form or local supplementary food. However, the Ministry of Health launched a local supplementary food programme and guidelines targeting children with MAM, those who are underweight, children with poor growth, and pregnant women with chronic energy deficiency in May 2023.

Finding 7: The promotion and uptake of multisectoral nutrition-sensitive interventions at the community level are limited. Indonesia's community health policies emphasize achieving universal coverage and social safety nets and are linked to access to health care and education. However, the coverage of multisectoral nutrition-sensitive interventions is limited. The role of the KPM in convening entities in the community between health, water, sanitation and hygiene (WASH), nutrition, and social welfare is a promising new initiative but is yet to be fully realized. Social welfare programmes, including non-cash food vouchers (SEMBAKO) and conditional cash transfers through the Family Hope Programme, are contingent on attendance at the Posyandu (among other services) but do not include a link to other services. However, they are promising avenues for promoting multisectoral interventions for nutritionally vulnerable children and their families.

Finding 8: Gender transformative approaches to nurturing care are being implemented through community platforms, albeit on a small scale. Family engagement and gender transformative approaches are critical for behaviour changes through a family-centred approach. Participation of family members, including husbands/fathers, in the community platforms is limited, highly variable and highly dependent on local culture and values. However, men are increasingly encouraged to participate in community sessions, including accompanying their spouses to ANC service and MSG activities. "Ayah ASI" refers to a parable or term for men who provide a support system to their partners to succeed in exclusive breastfeeding for the first six months of a child's life and continue up to two years and beyond. Husbands have a significant role in the success of a wife in breastfeeding her baby until she is two years old. Without the husband's participation, the process of providing exclusive breastfeeding is very likely to be disrupted. The PAUD-HI platform appears to have the scope to apply a gender transformative approach and family engagement through expanding services to include parenting classes (including fathers), e.g., Men Care style father groups. Parents often wait for their children to complete the early childhood education (ECE) sessions; this is an ideal opportunity to engage parents in proactive nurturing care-related activities.

RECOMMENDATIONS

Indonesia's community-based structures for health and nutrition interventions are well articulated in policy and national guidance documents, with substantial government leadership and diverse programmes and systems with overlapping functions but low fragmentation. However, the delivery of nutrition services at the community level could be reinforced in the following areas.

I) STRENGTHENING NUTRITION INTERVENTIONS IN COMMUNITY SERVICE PACKAGES

There is a need to strengthen the role of community-based service providers in delivering preventive nutrition and nurturing care interventions, particularly at the household level. Currently, the CHS is delivering less than 50 per cent of essential nutrition interventions, most of which are provided by the Posyandu Kader. The emphasis on service provision for preventive nutrition interventions lies heavily within the formal health sector, and coverage is highly inadequate, resulting in missed opportunities to reach a larger proportion of the community with a comprehensive package of essential nutrition services. Five actions are crucial to strengthen the package of nutrition services delivered through the CHS platforms:

1. **Develop a standardized package of interventions and allocate responsibility for delivery across all the community-based platforms relevant to nutrition.** This package should include interventions currently not included in the community service package (identification and referral of wasted children and infants at risk of poor growth and development, home follow-up of low birth weight and at-risk infants, and counselling during pregnancy). Setting minimum standards for delivering interventions by each community platform and cadre will support improving the coverage of all essential services.

2. **Strengthen early detection, referral, and community-level follow-up of children with wasting.** The focus should be placed on implementing existing wasting treatment policies more widely and multisectoral nutrition actions to reduce stunting. Family-led MUAC would be the ideal strategy to ensure coverage with growth monitoring where children are not reached. Nevertheless, the provision of wasting treatment services is highly contingent on the national government's ability to produce local ready-to-use foods; as such, there is a need to advocate for improved funding allocation for wasting treatment.

3. **Expand the community health system's role in delivering nutrition interventions.** The role of community service providers in providing preventive and curative nutrition interventions should be strengthened to improve coverage of nutrition services at the community level through task-shifting the provision of preventive actions for nutrition across the life course from health facilities to community-based programmes. Diversification of roles will support the effective delivery of different nutrition services via other modalities.

4. **Strengthen the implementation of nurturing care actions through PAUD-HI or MSG platforms.** Nurturing care interventions for promoting safety and security, responsive caregiving and play, and psychosocial stimulation should be integrated into parenting programmes, ideally targeting developmentally and nutritionally at-risk children and beneficiaries of social protection programmes.

5. **Strengthen nutrition social and behaviour change communication (SBCC) in social protection programmes.** SBCC, in the first 1000 days, especially infant and young child feeding (IYCF) should be targeted to households with pregnant, lactating mothers and children under two years, especially those receiving conditional cash transfers or those known to social services. Messages/services should be 'packaged' according to gestation or age.

II) IMPROVING DELIVERY STRATEGIES FOR NUTRITION SERVICES AT THE COMMUNITY LEVEL

Our findings show that group-based approaches, with occasional community campaigns, are the primary method for delivering nutrition services. Individualized support is not prioritized, hindering community service providers' ability to address undernutrition in vulnerable children. While universal coverage of Posyandu services is critical, targeted support to marginalized households is necessary. To diversify delivery strategies, consider the following actions:

- **Promote identification and targeted nutrition support for vulnerable families** across all community platforms. It is essential to establish clear criteria for targeting and triggering nutrition support, e.g., in a household with a child with wasting or a low-birth-weight infant. This should be supplemented with home visits where possible. Moreover, training for all service providers should cover effective interpersonal communication and equip community service providers with skills to identify social determinants of health and underlying factors contributing to poor nutrition and growth and development in children and link them with appropriate services. During Posyandu services, screening for undernutrition and growth monitoring should be used to identify vulnerable households that could benefit from more intensive support beyond group counselling. A timely and targeted home visiting strategy for households with children in the first 1,000-day period should be implemented to support key moments in IYCF practice. Finally, Kader (s) support for at-risk children under six months, focusing on addressing breastfeeding problems, should be strengthened.

- **Introduce SBCC** based on dialogue methodology and group-based services targeted at the most vulnerable houses to support individual families in identifying and addressing their barriers to specific practices; this is the most effective health counselling approach.

- **Further, leverage the KPM to promote convergence of nutrition interventions** delivered through the various community platforms to avoid duplication and maximize the effectiveness of existing linkages in support of vulnerable families.

III) MAXIMIZING THE USE OF EXISTING COMMUNITY PLATFORMS AND SERVICE PROVIDERS IN THE DELIVERY OF NUTRITION INTERVENTIONS

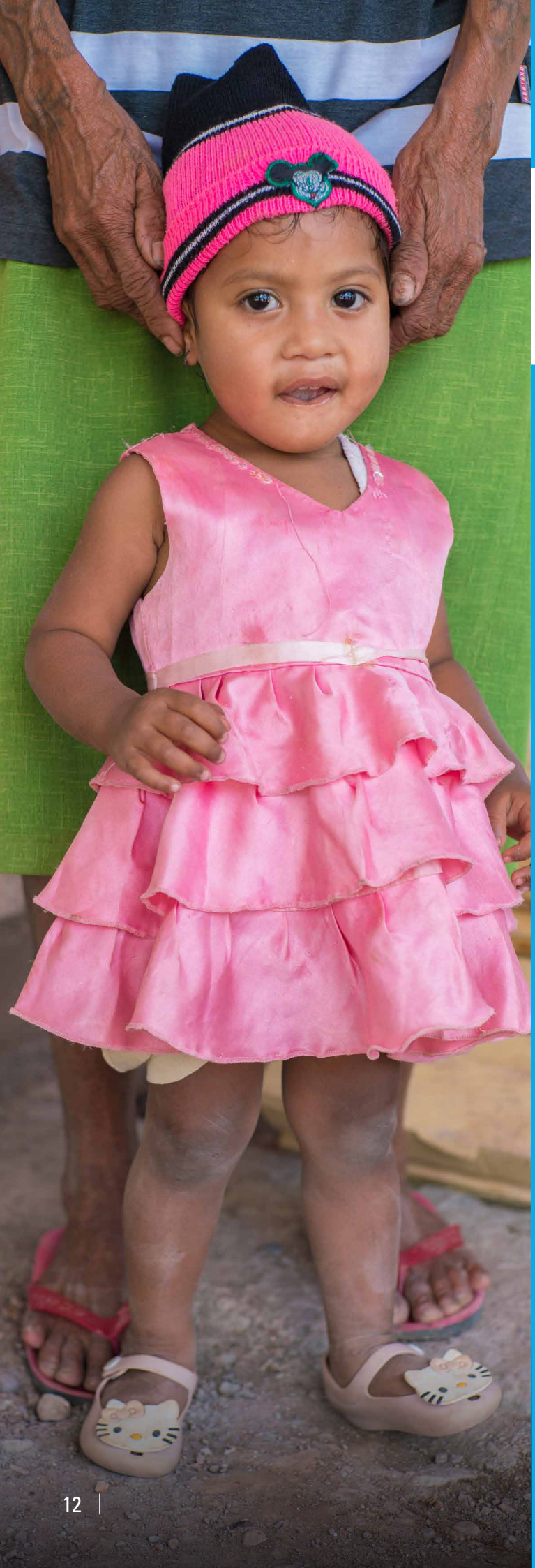
Our findings show that the capacity of the community structures to deliver nutrition is currently not being utilized at its full potential and that its effectiveness could be further enhanced in line with standards set forth by the World Health Organization (WHO) guideline on health policy and system support for community health worker programmes. Strong guidance documents for community structures exist, but a policy review is recommended to strengthen effectiveness in service delivery. However, health policy must legitimize and support the recommended actions for meaningful impact.

- **Maximize the effectiveness of the *Posyandu Kader*.** Posyandu remains the most suitable and sustainable platform to integrate nutrition actions, but improvements are needed. Further alignment with the WHO guidelines for health policy and systems to strengthen community health workforces will maximize their effectiveness. The current workload and incentive structure do not allow them to fulfil the required tasks comprehensively. An in-depth review of their roles and responsibilities, incentives, and providing competency-based pre-service and in-service training is recommended. Incentives for Kaders should include non-financial incentives, such as opportunities for advancement, including accrediting training and skills development over time, career progression or opportunities for income development. The focus should be provided to incentivize support for Kader activities likely to be neglected (e.g., home visits).

- **Improve supportive supervision of Posyandu Kader and other community-based service providers delivering nutrition services.** The *Posyandu Kader* lacks meaningful supervision due to the many volunteers and health posts one village health worker covers. To improve the supervision, it is recommended to establish a tier or team-based supervision approach, where more experienced *Kader* can work as peer supervisors for a village or cluster of hamlets, with a maximum of ten Posyandu posts per supervisor. Furthermore, a review of existing supervision tools should be conducted to ensure and promote compliance with minimum standards (yet to be developed) and address the performance of individual service providers and the entire community platforms for delivering nutrition and health services.

- **Consider formalizing links with health authorities to recruit and train Posyandu Kaders.** To enhance the reach and quality of *Posyandu* services and ensure oversight from health authorities, it is advisable to consider formalizing links with health authorities in selecting and training Kaders in the medium to long term. Kaders should be given written agreements and certifications and tracked participation in training and experience. In addition, expanding the role of the *Pokjanal Posyandu* committee in setting and monitoring Posyandu performance targets can significantly improve health outcomes for local communities.

- **Harmonize reporting across all the community-based service providers to avoid duplication of efforts.** Considering that each community platform has an independent data system, it is essential to ensure that reporting is consistent across all service providers and community platforms to avoid unnecessary duplication of efforts. In addition to upstream reporting, emphasis should also be placed on ensuring local-level use of the data in planning and monitoring the reach and quality of services.



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INTRODUCTION

In low- and middle-income countries, community health workers (CHWs) are often the first point of contact and serve to extend the reach, access, and equity of health services.

Community platforms are equally important in transforming social norms and mobilizing collective community action via community health committees, leadership structures and social accountability mechanisms.[1] The CHS offers the best opportunity to scale up nutrition interventions to where they are needed most.[2,3,4] The current WHO recommendations suggest that CHWs should be compensated.[2] However, most CHWs remain volunteers while expected to achieve many tasks in a large area.[5] Also, UNICEF research suggests that many countries still face challenges detecting child wasting early because community outreach efforts are insufficient.

UNICEF East Asia and Pacific Regional Office (EAPRO) commissioned an analysis of community service provision platforms and programmes in four countries (Cambodia, Indonesia, Papua New Guinea, and the Philippines). The goal was to conduct a landscape analysis of community-level action in delivering nutrition services and inform policy and programmatic actions on leveraging community service providers and platforms to scale up nutrition services.

In this report, "cadres" or service providers refer to individual contributors (such as Kader, KPM and ECE/PAUD teachers), whereas community "platforms" are multi-provider of interventions or systems such as programmes, services, outreach, community groups, campaigns, committees, and other support schemes. This section presents the literature review results in three parts: an overview of CHS, the Indonesian nutrition context, and the country's enabling environment for strengthening nutrition within the CHS.

1.1. THE INDONESIA CONTEXT

Indonesia, the world's fourth most populous nation, is a vast and dispersed country with over 17,500 islands. It is also geographically and culturally diverse, presenting challenges for coordination between local, regional, and national governments and for managing its health system. Indonesia is divided into 38 provinces and 514 districts/municipalities (416 rural districts and 98 urban municipalities), further subdivided into 7,252 subdistricts and 83,820 villages.[6]

NUTRITION SITUATION

Indonesia has made some progress towards achieving the global target for stunting, although 21.6 per cent of children under five years of age are still affected. The Indonesian nutritional status survey (SSGI 2022) shows that the prevalence of child wasting has also been steadily declining from 10.2 per cent to 7.7 per cent, with 1.3 per cent affected by severe wasting.[7] However, Indonesia still has the second highest number of children under five affected by severe wasting globally. Despite solid community health engagement, much remains to be done to effect change and realize government nutrition targets. These targets are set out in the National Medium-Term Development Target (RPJMN 2020–2024) as a reduction to 14 per cent for stunting and 7 per cent for wasting by 2024. While there has been no progress towards reducing the prevalence of low birth weight, Indonesia is on course to achieve the exclusive breastfeeding target, with 52.5 per cent of infants aged 0 to 5 months exclusively breastfed.[8] However, there is strong evidence to suggest that poor complementary feeding practices significantly contribute to the lack of progress in stunting and wasting over recent years.

Table 1: Indonesia's progress against 2030 global nutrition targets

	Baseline (2013)	Latest (2020, 2022)	Progress
Stunted % (moderate and severe)	37.2	21.6	Some progress
Wasted (moderate and severe)	12.1	7.7	Off track
Wasted % (severe)	3.5	1.3	Some progress
Overweight %	11.8	3.5	Worsening
Early initiation of breastfeeding %		58	
Exclusive breastfeeding %		52	
Exclusively breastfed %	41	51	Some progress
Minimum meal frequency %		71	
Minimum dietary diversity %		54	
Minimum acceptable diet %		40	
Low birthweight %	10	6.2	On Track
Anaemia (women of reproductive age) %	27	27 49% of pregnant women (2018)	Worsening

Source: United Nations Children's Fund, 2021 [7,9,10]

Box 1

Insights from recent nutrition data in Indonesia

1. Specific nutrition priorities for Indonesia include high rates of child stunting, wasting and anaemia in children, and anaemia and chronic energy deficiency in pregnant women.
2. There is a lack of data on the new WHO healthy eating and nurturing care indicators, although data show an exceptionally high rate of punitive physical discipline against children.
3. There is a lack of disaggregated data around malnutrition rates and health service coverage by wealth quintile, as in this context, it is deemed difficult to collect, and thus, educational status is treated as a proxy.
4. Recent data shows significant improvements in the IYCF practices, particularly breastfeeding, since the last global nutrition report. However, equity analysis reveals that all subgroups of the population do not share these advances, and there is a strong need to focus on and target vulnerable groups, specifically the lowest economic quintile and undereducated mothers.
5. This data suggests that recommended interventions around dietary diversity and minimum acceptable diet, specifically amongst the most vulnerable families, will be an essential strategy relative to blanket interventions.

GOVERNMENT COMMITMENT TO NUTRITION

The Government of Indonesia (GoI) has committed to tackling all types of undernutrition simultaneously, as outlined in the 2018 National Strategy to Accelerate Stunting Prevention, which includes plans to scale up child wasting prevention and treatment.

The treatment of wasting in children has been included as a standard component of health services in Indonesia since 2011[11]; however, the uptake and quality of this service are low.[12,13] The community-based management of acute malnutrition model was piloted by the Ministry of Health and UNICEF from 2015 to 2018, using Kader to carry out screening. The pilot showed low uptake, as screening at the Posyandu was estimated to reach only 14 per cent of eligible children. Furthermore, follow-up after treatment was low and defaulting on treatment was around 48 per cent.[13] The study results were used to intensify the community mobilisation strategy, secure political commitment, and additional resources, and increase support and ownership of the programme.

As a result, by the end of the pilot, the programme met three of four global performance indicators, with 79 per cent of children recovered, less than 10 per cent defaulted, and less than 1 per cent who died. Notably, the screening rate improved significantly to 66 per cent. Community mobilisation has now been a part of the Integrated Management of Acute Malnutrition (IMAM) strategy since 2019 based on the positive result of the pilot. As part of stunting prevention efforts, the IMAM approach has also been scaled up in stunting priority districts.

A review of national policies led to the launch of the National Strategy to Accelerate Stunting Reduction in 2018.[14] One element of this strategy is the convergence of government programmes at the village level. To this end, a new cadre *(Kader Pembangunan Manusia (KPM)* or Service Providers for Human Development was created as part of efforts by the Ministry of Village, Development of Disadvantaged Regions, and Transmigration to prioritize the use of the Village Fund for nutrition services. The Village Fund instrument has been in effect since 2015 as part of Indonesia's government's fiscal policy changes to enhance its rural economy. *KPM's* primary responsibility is to facilitate the convergence of stunting prevention efforts at the village level by guiding the village governments to manage and prioritize using village funds for activities that directly impact accelerating stunting prevention.

1.2. INDONESIA'S HEALTH SYSTEM

Indonesia's public health system includes national, provincial, district, subdistrict, village, and community facilities. The system is strongly decentralized, with most health management responsibilities landing at the district level. In contrast, national and provincial health authorities provide technical and financial assistance but do not have direct line management responsibility. The national government has the authority to set priorities for local governments' minimum standards of service and issue guidance, although mechanisms to enforce compliance and assure quality are still needed.

At the district level, capacity is highly variable. The Minimum Services Standards[15] were set up to reduce variation. Still, the standards need regular updating and translation into the local context, often suboptimal due to a lack of local capacity and political commitment. At the subdistrict and local levels, the current organization of primary health care has been operational for over 60 years. It consists of **primary healthcare centres *(Puskesmas),*** auxiliary health centres ***(Puskesmas pembantu/ Pustu)*** in some sub-districts within areas of poor service coverage, and **birthing centres *(Polindes)*** at community level.

The ***Puskesmas*** are the main health service provider, covering a catchment area of around 30,000 people. According to the Decree of the Minister of Health (no 43/2019), these must be staffed at least by a doctor, a dentist, nurses, midwives, health promotion staff, a nutritionist, a pharmacist and a lab technician, and this team is responsible for managing and overseeing activities in the area of subdistrict they covered.[16] *Puskesmas pembantu* are usually staffed by a nurse/midwife, while *a village midwife staffs Polindes.* She carries out antenatal care for only non-at-risk pregnancies, childbirth referral to Puskesmas, family planning, child growth and development monitoring, supporting breastfeeding and early childhood interventions, and providing services at the *Polindes* or through community visits. The midwife, together with the other *Puskesmas* staff, also supports the activities of the *Posyandu Kaders.*

Posyandu (integrated service posts) are found at the village and sub-village level (hamlet). The total number can be up to 20 in one village, depending on the number of households or children under five. Together with PAUD-HI, they form the main community health platforms. *Posyandu* is a community-run activity, with technical support from the village midwife and other Puskesmas staff. Their focus is on growth monitoring, immunization and assistance/education on pregnancy ANC services, which are conducted monthly. It is rooted in the 1975 PKMD or *Pembangunan Kesehatan Masyarakat Desa* (Village Community Health Development) policy, established by the Ministry of Health. Initially, the PKMD activities focused on nutrition improvement of children under five years, diarrhoea control posts, health posts, immunization posts and village family planning posts. Still, these were integrated in 1984 as community health activities at the *Posyandu*.

In some places, Posyandu does not have a bespoke building and may be held in community spaces or at the home of the *Posyandu Kader* (hereafter known as Kaders), an almost entirely female voluntary workforce who receive small stipends for supporting monthly *Posyandu* activities. There are over 1.5 million *Kaders*, and the programme has reached national coverage. Each *Posyandu* should have at least five *Kaders,* but in reality, this ranges from three to five volunteers, covering roughly 700 people through the monthly sessions.[17] *Posyandu* working groups ***(Pokjanal Posyandu),*** composed of community leaders, provide management support to the *Posyandu.*

The PAUD-HI (HI-ECE) programme is considered a considerable success among local governments and communities. It has been seen as a way to increase community health posts' activity and deliver early childhood education services.[18] The programme provides training and grants for communities to set up early childhood education centres. Parents, mostly mothers, bring their children and often stay while their children participate in activities, usually up to four times a week for a few hours. Activities are run by paid PAUD (ECE) teachers with support from volunteers. Centres may be co-located with local health posts or *Posyandu*, so there is an opportunity to connect with the local midwife, and efforts are underway to integrate the Posyandu and PAUD-HI platforms.

Other key community health platforms include the Women's Empowerment Movement, ***Pemberdayaan dan Pembinaan Kesejahteraan Keluarga*** (PKK), *Mothers' support groups (MSGs),* and cadre for Human Development *(Kader Pembangunan Manusia/KPM)* who are tasked with promoting convergence of stunting reduction efforts. The PKK is a national organization with mandatory membership, running for over 40 years. Members participate in various women's empowerment, health, and nutrition activities. *Posyandu* Kader and PAUD teachers are often linked to the PKK. PKK's service providers receive specialized trainings from the government or other institutions, which include the *Posyandu Kader.* They do not conduct additional activities in child nutrition outside of the *Posyandu.*

2 METHODOLOGY

The study aimed to conduct a comprehensive analysis of the community service providers as they relate to nutrition actions in Indonesia, including key policies and guidelines; major characteristics of key service providers, platforms and programmes and their functionality, to understand their current role primarily in direct nutrition actions; and service packages (namely, direct nutrition interventions (DNI), nutrition-sensitive and nurturing care interventions) to identify gaps and opportunities for further scaling up delivery of nutrition services in the community.

All information was collected through a desk review of policies, guidelines and programmes identified in the call for documents and analysed through various tools (see Annexes 1–6 for more detailed information on data collection tools, documents used in the study, etc.). From these documents, we sought to understand the existing range of community service providers, platforms and programmes currently functioning in Indonesia and identify their programmatic characteristics. We compared these to international normative guidance and best practices to determine their relative strengths and weaknesses. We then conducted a functionality assessment that explored how the predominant programme, the *Posyandu platform and Kader,* compares to international standards in practice to inform reinforcement activities that might lead to its improved effectiveness. We also mapped out all actions related to direct nutrition interventions within the service package to identify any areas where services could be reinforced.

2.1. SELECTION OF SERVICE PROVIDERS AND PLATFORMS FOR THIS STUDY

A situation analysis of community health systems was conducted based on a literature search and a call for policies and guidance documents among the Ministry of Health and other stakeholders. Four service providers were selected for this study based on prioritisation criteria of high coverage and active role in nutrition services, including *Posyandu platform* and *Kaders;* PAUD-HI platform and PAUD teachers; MSGs; and KPM (Table 2).

We reviewed existing published evaluations and national reports to identify if the selected community health system platform has adequate coverage or potential for scale-up and a sound evidence base for effectiveness.

2.2. FUNCTIONALITY ASSESSMENT

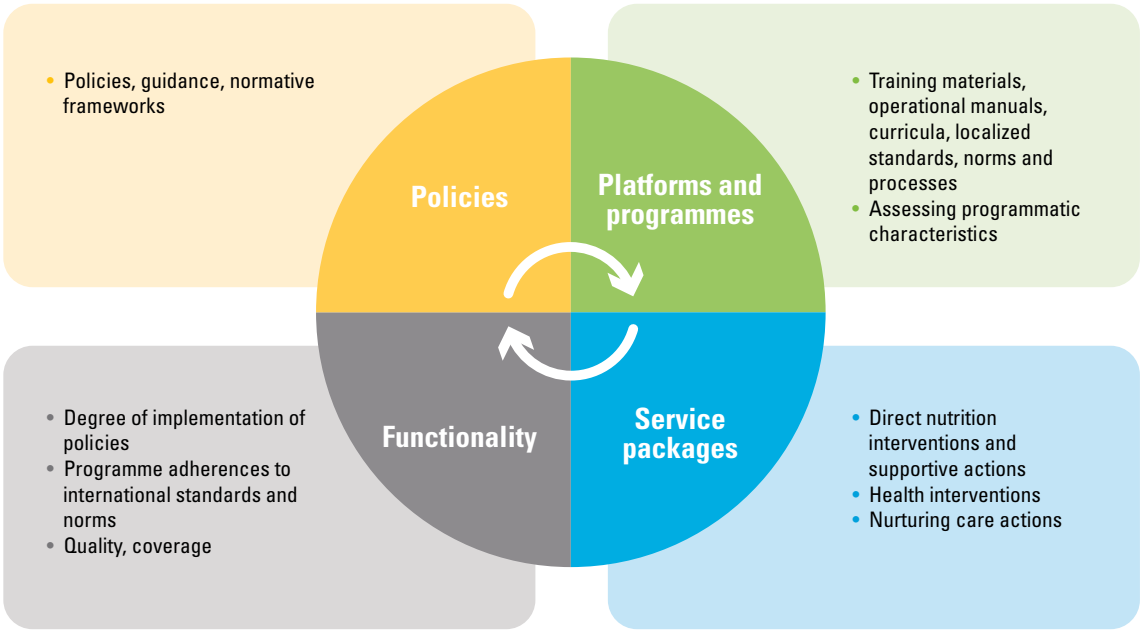
The Functionality assessment was conducted for the *Posyandu* platform and its *Kader* workforce only using modified Implementation Quality Assurance (IQA) tools - the CHW AIM[19], CHMC tools[20] and implementation quality assurance checklists. Existing and recent publications comprehensively addressed many elements considered in the tool; therefore, these were used for assessment instead of conducting focus group discussions (the typical mode of data collection). Such discussions were also considered problematic under COVID-19 restrictions. However, a limitation of a desk-based approach is that functionality may have reduced or increased since 2016, when the reviewed documents were published. Ideally, a functionality assessment should be updated every five years or following a significant policy change.

Using the IQA tool, we reviewed three key reports,[21,22,23] and gathered the relevant information to rank the functionality of different programme components, called "Essential Elements" or EE. We ranked the EE from 0 to 3, where 0 = low/partial functionality, or excludes most of the components; 1= partially functional and includes some of the components; 2= functional and includes at least half of the components; and 3 = highly functional and includes most of the components.

2.3. DATA ANALYSIS

Data analysis covered four domains (Figure 1): (1) policies; (2) platforms and programmes; (3) service packages, and (4) functionality of the platforms and service provider cadres. Findings from this process were used to identify gaps and make recommendations.

Figure 1: Analysis framework used in this study.



LIMITATIONS OF THE STUDY

This study was undertaken from June to October 2021, as the country was dealing with a second wave of the COVID-19 pandemic. While a technical consultative process was established in other countries in the study, no such process was carried out in Indonesia due to this second wave. This may have resulted in some missing information for the KPM platform. Every effort was made to ensure that the policies and guidance used in this study were as inclusive as possible, but the findings are limited to the reviewed documents. With regards to the functionality assessment, usually, we would look across the spectrum of platforms and select the appropriate ones; however, *Posyandu* is the critical platform, and therefore, the recommendation is that if the system is reformed, roles are diversified to deliver different services via different modalities as described below effectively.

3 RESULTS

Results are presented in three parts: (1) an overview of the characteristics of community service provision, platforms, and cadres relevant to nutrition, based on a desk review of policies and documents (3.1); (2) functionality assessment of the Posyandu, based on a desk review of key documents (3.2); and (3) inclusion of nutrition services within community service packages. (3.3). These results are used to inform the discussion (Section 4) and recommendations as to which platforms and service providers might be most appropriate for the integration of nutrition services (Section 5).

3.1. COMMUNITY SERVICE PROVIDERS INVOLVED IN THE DELIVERY OF NUTRITION SERVICES

Indonesia's public health system includes facilities at the national, provincial, district, subdistrict, village, and community levels, which employ formal health staff who also support service delivery at the community level.

Based on consultation and the prioritization criteria (high coverage, direct service provision, key roles in nutrition activities), four platforms and service providers were identified as the main players in nutrition services at the community level. This section describes their roles.

Posyandu and PAUD-HI platforms and related cadres are longstanding programmes with a good level of maturity and strong linkages with health authorities. At the same time, MSGs and KPM are more recent initiatives.

Table 2: Critical service providers and platforms for delivery of nutrition services

	Name	Type	Managing authority	Brief description of cadre/platform
1	*Posyandu (Posyandu Kaders)*	Community health volunteers, regular	Ministry of Home Affairs	**Nationwide programme – established in the mid-1980s.** This is the most widespread and all-encompassing platform available in the entire country, covering urban, peri-urban, rural, and remote locations. ***Key resource:*** Ministry of Home Affairs (2011)[24]
2	PAUD Holistik Integratif/PAUD HI[25] (Early Childhood Education - Holistic Integrative Programme) Early Childhood Educators PAUD (HI)	Community workers (formal and informal)	District Education Office, Ministry of Education, District/ village government	**Nationwide programme – established for 61 years.** Widespread and well-established programme, popular with families and able to provide parenting interventions and ECD services. The PAUD HI is integrated with Posyandu activities. ***Key resource:*** Ministry of National Development Planning Republic of Indonesia (BAPPENAS) (2018)[18]
3	Mother Support Groups (MSGs) -Hari Pertama Kehidupan (HPK)	Community groups	Ministry of Health with support from civil society	**National programme – established in 2009.** Currently strengthened by UNICEF for the nutrition components and widely implemented, covering a variety of preventive nutrition actions at the community level, with the potential for the delivery of nurturing care interventions. ***Key resources:*** Ministry of Health, Republic of Indonesia, (2019)[26]; Ministry of Health, Republic of Indonesia, (2019)[27]
4	*Kader Pembangunan Manusia (KPM) - Service providers for Human Development*	Paid workforce	*Ministry of Villages for Development of Disadvantaged Regions and Transmigration, appointed by the village government.*	**New cadre – established in 2019.** A relatively new cadre tasked with facilitating convergence of stunting reduction programmes at the village level. They are currently limited in number and receive a (small) salary. ***Key resources:*** Ministry of Village, Development of Disadvantaged Region, and Transmigration (2018)[28]; Ministry of Village, Development of Disadvantaged Region, and Transmigration, (2018).[29]

3.1.1 Posyandu/ Posyandu Kaders

Posyandu Kaders are community health volunteers who provide Posyandu services with the support of village midwives and other community health centre *(Puskesmas)* staff.

What they do: Kaders perform several tasks during Posyandu sessions held once a month at the sub-village level, according to the "five tables": (1) registration; (2) growth monitoring of children under 5 (monthly weight and twice-yearly height/length); (3) recording; (4) assist professional health workers in nutrition counselling, education and services (e.g., provision of supplementary foods) for mothers of children under five and pregnant and lactating women; (5) assist professional health worker in providing health services, family planning, immunization, and antenatal care services.

They are also tasked to carry out home visits for malnourished children and those who have not attended the sessions, maintain records of infants and children under-five, pregnant women, and lactating women in their catchment area, ownership and utilization of the Maternal and Child Health Handbook and Posyandu attendance. In addition to their tasks related to the *Posyandu* sessions and home visits, Kader also plays a role in coordinating with cross-sectoral stakeholders in the village, such as KPM, PKK, PAUD teachers, and village officials to synchronize the stunting-related programmes, participate in the *Rembuk stunting* in the village, and advocate for the use of Village Fund for stunting prevention-related activities.

Recruitment: They are elected by village residents and installed by the village head. They must be resident in the villages, willing and motivated to volunteer.

Training: *Kaders* receive short training from the *Puskesmas staff,* with two days of orientation and a maximum of a week of training to cover many topics using a standard national curriculum. Training follows a national standardized curriculum. *Kaders* should receive orientation and training from *Puskesmas.*

Supporting policies & funding: *Kaders* receive a nominal transport fee from the *Posyandu* fund. Funds can be provided from the government (national, provincial, district, or village budget), community membership fees, donations, social funds, or entrepreneurial activities by the *Kader.* The Pokjanal Posyandu[a] supervises them at the village level and by health staff, particularly the village midwife.

Strengths: Posyandu services are available nationwide with up to 20 integrated posts per village, and it is well staffed with over 1.5 million *Kaders.* They are key in the stunting reduction programme to provide information on child and maternal health and general health in the village. It also has relatively strong supervision and management structures in place, with direct supervision by village midwives and oversight by *Pokjanal Posyandu.*

Challenges: The predominant mode of delivery of services is group-based, with occasional community campaigns. The sessions themselves are very intense, with large numbers of caregivers and children seen in a short space of time; as such, they offer limited opportunities for in-depth counselling. Individualized support is not done routinely, which may limit their ability to address undernutrition in vulnerable children. The Kader appears to be overloaded with many tasks to cover within a small team, all during a single monthly event and only work 5 to 12 hours per month. Kader also report difficulties influencing mothers or gaining interest and support from other family members.[21,22]

Opportunities: As respected health volunteers in their communities, Kaders are involved in the village-level stunting discussion (*Rembuk* stunting) and have opportunities to advocate for using village funds towards stunting reduction activities.[21] Kader play a role in coordinating with cross-sectoral stakeholders in the village, such as KPM, PKK, PAUD teachers and village officials, to synchronize stunting-related programmes. The recent introduction of an e-data system (e-PPGBM)[b], an electronic community-based system for recording/ reporting child nutrition, has been positive. However, data quality and use need further attention. Though the

a Current literature searches have not identified the extent of coverage or implementation of these.
b E-PPGBM is a part of the Integrated Nutrition Information System developed by the MoH to obtain information on nutrition problems and the performance of the nutrition program for programme and policy making.

system has been rolled out in all districts, compliance and quality of reporting need to be strengthened. The *Kaders'* role in educating families and encouraging husbands/fathers to participate in Posyandu activities (direct/indirectly) provides an opportunity to drive a gender transformative approach in addressing child malnutrition.

NOTE: The Pokjanal Posyandu manages the ***Posyandu,*** also known as *Kelompok Kerja Operasional Pembinaan Posyandu* (Posyandu Operational Working Group). This is a community-managed committee whose role is limited to management of the health post; they are not involved in monitoring, setting goals and targets, or ensuring the quality and coverage of community nutrition. These groups are established at national, provincial, district, and subdistrict levels by appointment by the Head of Government at that level.

Their tasks are like those of community health committees found in other countries. They develop annual plans, identify funding sources often through influencing the village fund allocation, and provide support (technical, advocacy, facilitation, monitoring, and evaluation). They report and review data on activities in their regions and provide solutions or coordinate with relevant stakeholders to do so. The Pokjanal in each level reports their activity annually to the highest authority at the level (e.g., Minister of Home Affairs at the national level, governor at the provincial level, and so on). Members of *Pokjanal Posyandu* can be government officials, academics, professional organizations, NGOs, the private sector or communities.

3.1.2 Early Childhood Education (ECE) teachers/ PAUD teachers

Pendidikan Anak Usia Dini-Holistik Integratif /PAUD-HI (Holistic Integrative- Early Childhood Education)

PAUD-HI is an early childhood programme under the Ministry of Education and Culture (MOEC) managed by district or subdistrict and village-level government and supported by a combination of salaried professional workers and support volunteers with some formalized training. Ideally, It is intended to be staffed with qualified PAUD teachers, but due to limited capacity, it delivers service by *Posyandu Kaders* and/or Toddler Family Empowerment (BKB- Bina *Keluarga Balita*).

Based on the MOEC Strategic Plan 2020-2024, 91.4 per cent of districts have already implemented PAUD-HI in their area. Ideally, there is one PAUD per village or neighbourhood, with a minimum of one teacher with at least a diploma or bachelor's degree.

What they do: PAUDs target children aged 0–6 years, provide educational activities to support growth and physical and spiritual development, and prepare children for primary education. PAUD are divided into types based on age:

1. Kindergarten: formal PAUD for children 4–6 years, prioritized for 5–6-year-olds.
2. Specialized kindergarten: as above, but particularly for children with special needs.
3. Playgroup: non-formal PAUD for children 2–6 years, prioritized for 3–4-year-olds.
4. Day-care: non-formal PAUD for children 0–6 years, prioritized for 0–4-year-olds.

PAUD-like education service includes any non-formal education services for 0–6-year-olds delivered independently or integrated with various health, nutrition, religious, and/or social services (e.g., *Posyandu*)

Recruitment: The recruitment is done by the schools themselves, i.e., kindergarten or playgroups. The process usually includes a written test, practical test, psychological test, microteaching, and interview. There is also recruitment by the government to become civil servants, done annually, and the vacancies depend on the resource needs of each province/district.

Training: Tiered education and training use a nationally standardized curriculum that consists of 3 levels, namely: 1) the basic level, 2) the middle level, and 3) the advanced level. The training aims to improve the competence of three levels of ECE educators (companion teachers, junior companion teachers and PAUD teachers) in a continuous and tiered manner. Trainings are held by the Education Office at the provincial/district level together with the Indonesian Association of Early Childhood Educators (HIMPAUDI).

Supporting policies & funding: At the village level, the government supports infrastructure and incentives for the teachers. PAUD operational funds come from national/provincial/district/village budgets, including village funds and other legitimate and nonbinding funding sources.

Strengths: An evaluation by the World Bank[30] reported that ECE centres or Pusat PAUDs are a great cause of pride and that communities provide additional resources for the centres. Providing supplementary food for underweight children occurs via ECE centres, which may serve as an incentive for participation. Service providers report the PAUDs' effectiveness in effectively observing better school preparedness and self-confidence, delivering nutritional supplements to children from low-income families, and identifying and referring children with malnutrition.[21] Additional positive practices include the inclusion of secondary caregivers, who were primarily grandmothers: we did not identify any strategies for proactive male involvement. Linkages with the *Posyandu* or *Puskesmas* for specific health intervention such as vitamin A provision, immunization, or health check-up appears to be a key success factor in connecting and ensuring participation in the PAUD-HI by vulnerable families.

Challenges: There is a noted lack of structured supervision, individual performance assessment and coaching among educators by public sector staff. Capacity building of educators appears to be mainly provided by civil society organizations. One study suggests that there are major challenges in routinely evaluating and learning, which may limit the ability to use data to improve programme performance.[31] Also, there appears to be high variation in funding across the provinces.

Opportunities: There is a need for quality assurance and assessment of standards. The IQA assessment of the PAUD-HI would be a high-value activity for field sites where UNICEF plans to work. In some locations, there are educational sessions for parents; however, mothers often wait outside for their children, resulting in a missed opportunity to promote nurturing care for child development among parents and target children most developmentally at-risk.

3.1.3 MOTHER SUPPORT GROUPS

The MSG programme is a group-based methodology for improving breastfeeding practices within the first 1,000 days of life (known as 1000 *Hari Pertama Kehidupan* (HPK) in Indonesia). Village midwives run the programme out of the birthing centres with support from community members. Community and faith leaders are engaged in promoting MSGs and sensitizing target groups about the initiative; as such, there is strong integration with health facility activities and existing platforms, such as the *Posyandu* and *PAUD HI.*

What they do: There are two distinct but related sessions (known locally as "mothers' classes"), one for pregnant mothers and their partners and the second for caregivers of children under the age of 5 years. The midwife facilitates discussion around pregnancy, breastfeeding, and child nutrition during the group meetings, which are conducted in a participatory manner. She also must do home visits to mothers who have just given birth to support them in providing exclusive breastfeeding. The subdistrict health team supervises them.

Recruitment: This information was not found in the reviewed documents

Training: A training of trainers (TOT) in the implementation guidelines and the use of the facilitator's handbooks is carried out at the provincial and district levels using a government-standardized national curriculum published in 2019.[27] These trainers go on to select and train the facilitators at the level of the *Puskesmas*.

Supporting policies & funding: The government issued Guidance on implementation in 2019 and provided it in a facilitator's handbook.[27] MSGs are facilitated by village midwives according to a schedule defined by the district or subdistrict and are dependent on the allocation of resources. Supervision and monitoring are delegated to the subdistrict, and tools are provided for monitoring and evaluation. MSG activities are funded under the budget of the District Health Office and *Puskesmas*. Funding is limited and likely sub-optimum. Some advanced MSGs, for example, in Java, have adequate resources and even conduct regular training for health workers.

Strengths: The programme has strong government ownership and leadership, with much management responsibility, including design and planning, delegated to the subdistrict and district levels. In general, mothers' classes are aligned to international guidance for MSGs, with expanded coverage of children up to 5 years of age, and they are already addressing some multisectoral areas such as ECD stimulation and play. The classes are held in a participatory manner. MSGs are also considered to be a separate programme, as well as a follow-up activity that is integrated with other activities such as PAUD HI, BKB and *Posyandu*. They are designed to be implemented in all province areas, with one MSG per village. Programme coverage information is not currently available, but the programme is estimated to have national coverage. UNICEF Indonesia has undertaken a situation analysis on MSGs, pending publication. There is potential for the MSGs to be highly sustainable, given that they are fully integrated into public sector health activities. Limitations to sustainability may be a lack of resources.

Challenges: There is a variable investment in the MSG activities across sub-districts, districts, and provinces contingent on the time availability of midwives and allocations of funds. Developing standards might be helpful to enable comparison and evaluation of the programme. Supervision was also reported to be light touch and could be strengthened. It is also likely that the COVID-19 pandemic interrupted the activities of MSGs, and they may have had a reduced momentum post-pandemic.

Opportunities: These classes are an opportunity to engage mothers/carers in nurturing care and nutrition activities and could be a mechanism for promoting participation among vulnerable groups. Parenting classes are promoted for both genders, although we could not find detailed information. MSGs, such as Men Care style father groups, are ideally suited to run activities for fathers.[32]

3.1.4 Kader Pembangunan Manusia (KPM) – Human Development Cadre

KPM are community health volunteers willing to dedicate themselves to participating in human development in the village, especially in monitoring and facilitating the convergence of stunting reduction.[33] The programme is relatively new; it was established in 2019 as part of the efforts of the Ministry of Village, Development of Disadvantaged Regions, and Transmigration (Kemendes PDTT) to prioritize the use of the Village Fund for nutrition services and activities for stunting prevention.

What they do: KPM's primary responsibility is to facilitate the convergence of stunting prevention through community-level advocacy and to prioritize using village funds for activities that directly impact accelerating stunting prevention. They invite community members to participate in village planning processes, implementation of activities and monitoring. They also advocate for an increase in APBDes (village budget) spending mainly sourced from the Village Fund to finance integrated stunting prevention and reduction for specific and sensitive nutrition interventions. Specific tasks include (1) social mapping and data collection on the first 1,000 days of life; (2) focus group discussion and village stunting consultations; (3) promoting and monitoring convergence of stunting activities using the KPM score card; and planning of APBDes stunting activities. The convergence scorecard or KPM scorecard records patient data on stunting and growth and helps identify and target households with stunted children or children with risk factors for stunting according to the KPM scorecard.

Recruitment: *KPM* can be any local villager with experience as a cadre (could be Posyandu Kaders, PAUD teacher, etc.), good communication skills, ability to speak the local language and a minimum of secondary school education. Each village has one *KPM*, chosen by consensus among village heads and community members. One report states that *KPM* workers have been established in 3,105 villages in 281 subdistricts in 31 districts in nine provinces, with support from the World Bank project.[33]

Training: *KPM* are ideally selected from an existing trained cadre (e.g., *Kader* and PAUD teachers) with some human capital development expertise. However, it was reported that many of them were recruited untrained just before the COVID pandemic struck, hampered their activities' advancement. Nevertheless, this is a promising initiative with over 3000 *KPM* trained and active in Indonesia.

Supporting policies & funding: *KPM* are managed by the village head and are under the responsibility of the Ministry of Villages, Disadvantaged Regions, and Transmigration. Funding for their activities comes from the Village Fund. They are salaried and receive Per diems (meals, incidental expenses, travel, etc).

Strengths: *KPM* are critical in promoting convergence; they coordinate with programme actors and other institutions such as village midwives, other Puskesmas officers (nutritionists, WASH technicians), PAUD teachers and village officials or institutions. They use the e-Human Development Worker mobile application to generate a convergence or *KPM* scorecard to monitor and support the increasing convergence of nutrition interventions among families with infants in the first 1,000 days of life.

Challenges: *KPM* is a relatively new initiative, and there is still a lack of understanding at the community level regarding the leadership they should take over stunting activities. A technical study on the role of KPM reports that current programme challenges include the non-availability of growth mats and other anthropometric equipment, confusion over the overlapping roles of *Kaders and KPM,* and different reporting systems.[29] The village scorecard is not widely implemented, and the reporting flow differs from Puskesmas's. SBCC is limited, and there is no referral mechanism to *Puskesmas* for this cadre.[29,40] In terms of broader implementation, the initiative was just getting started when the COVID-19 pandemic hit, and it is, therefore, likely that activities have been curtailed and community service providers redirected to support COVID-related tasks.

Opportunities: *KPM* conducts monthly monitoring of the convergence of five service packages for managing stunting through the implementation of *Posyandu* activities, PAUD- HI activities, and visits to target homes. This social monitoring system is under the coordination of the *Ministry of Village, Development of*

Disadvantaged Regions, and Transmigration, but it has not been well-integrated into monitoring systems. However, KPM may be a viable platform for local monitoring and accountability. As an employed and trained workforce living in the community, they can support the PAUD-HI and MSG activities and liaise with Posyandu to provide additional oversight and advocacy for nutrition activities.

Summary of strengths and weaknesses of key service providers and platforms

Table 3 summarises the strengths and weaknesses of the community-based platforms and service providers considered in this study. ✓/ × indicate yes or no in terms of whether activities are being conducted against those criteria. Findings are ranked as "partially evident" if they are more nuanced.

Table 3: Summary of strengths and weaknesses

		Posyandu Kader	PAUD HI Teachers	MSG Village Midwives	KPM
Modes of working	A. Scheduled social behaviour change communication	-	-	-	-
	B. Routine social behaviour change communication	-	-	-	-
	C. Home-based community care	-	-	-	-
	D. Facility-based community care	-	✓	-	-
	E. Facility-led community care	✓	-	-	-
	F. Group-based interventions	✓	✓	✓	-
	G. Community mobilisation and campaigns or health education	✓	-	-	-
	H. Community management systems	-	-	-	✓
	I. Community-led or local-level advocacy	✓	-	-	✓
Promising practices	Systematic registration	✓	×	✓	×
	Community-wide register	×	×	×	×
	Targeting vulnerable families	Partial – underweight only	×	✓	✓
	Additional support for vulnerable families	Partial	×	✓	✓
	Opportunities for advocacy	✓	✓	-	✓
	Social influence	✓	✓	-	✓
	Engaging wider family	Partial	✓	✓	✓
	Gender transformative	Partial*	Partial *	Partial	-

		Posyandu Kader	PAUD HI Teachers	MSG Village Midwives	KPM
Functionality best practices	Functionality best practices	✓	×	✓	×
	Reasonable workload and coverage	×	✓	✓	✓
	Standardized national curriculum	✓	✓	✓	-
	Planned refresher training schedule	✓	×	×	-
	Accreditation	As Posyandu, not individuals	✓	×	-
	Employed	✓	✓	✓	✓
	Receive adequate financial incentives.	✓	✓**	✓	✓
	Receive non-financial incentives	✓	×	-	-
	Standardized supervision	✓	×	✓	-
	Individual supervision, coaching and performance evaluation	✓	×	✓	-
	Community engagement and support strategies	✓	×	✓	✓
	Automated data collection	×	×	×	✓
	Data use and feedback	✓	×	✓	✓
	Quality assurance systems in place	×	×	×	-
Governance & sustainability	Strong linkage with public health service	✓	✓	×	✓
	Sustainability considerations	✓	✓	✓	✓
	Multi-source and local funding	✓	✓	✓	✓
	Multisectoral linkage	Limited	✓	✓	✓

*Only female empowerment is considered, with limited male involvement activities.
** Supported by a combination of salaried professional workers and support volunteers who have limited incentives.

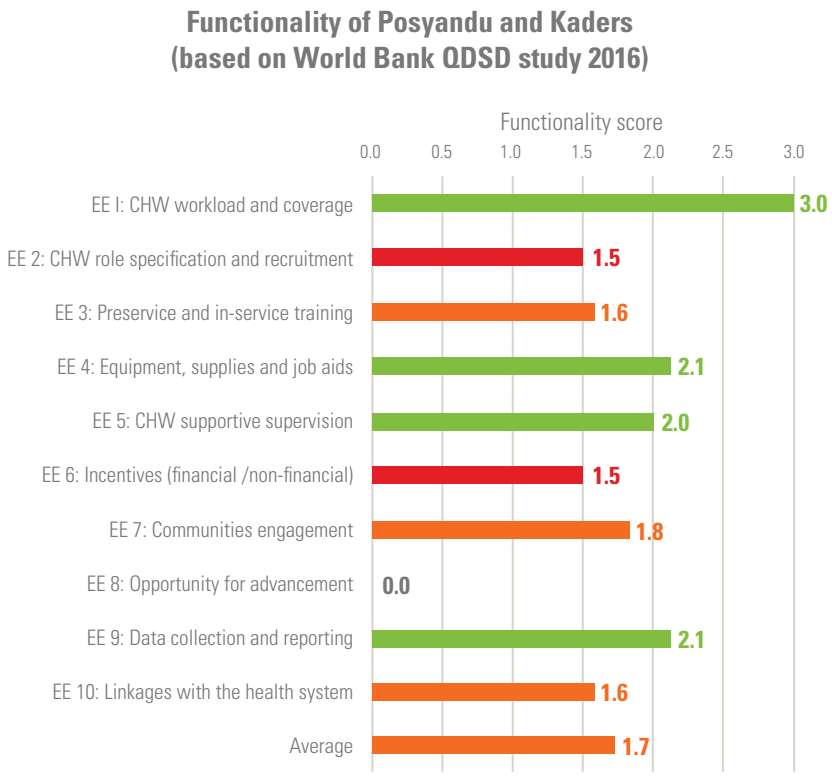
3.2. Functionality Assessment of the Posyandu Platform

We conducted a functionality assessment of the *Posyandu* platform and its *Kader* workforce using the IQA tool for CHWs to evaluate its capacity to provide nutrition services and coverage of nutrition services provided.

Results are summarized in Figure 2. In summary, we found the average functionality score of the *Posyandu Kader* to be 1.7 out of 3 (partial functionality), with 4 of the ten components being scored as "moderately functional" or "highly functional".

Kader's workload and coverage were ranked as highly functional. Equipment and supplies, supportive supervision, data collection and reporting were rated as moderately functional. Elements ranked as partially functional include role specification and recruitment, pre-service and in-service training, incentives, and community engagement. Opportunities for career advancement of the *Kaders* were not reflected in the documents reviewed. In conclusion, the average functionality score was 1.7 out of 3 (partial functionality), with four of the ten components scored as functional or highly functional.

Figure 2: Functionality assessment results of Posyandu Kader



Kader workload and coverage – score 2.7 out of 3

The workload was rated as reasonable. The *Kaders* are deployed as teams, which enables work sharing. There is a concern that the financial incentive for the *Kaders* is not adequate, and funds raised by community resources are not enough; therefore, advocacy to increase funds to support *Kaders* might be necessary. Lack of household visits, which is a critical activity when reaching out to families with vulnerabilities and where children are nutritionally at risk, was identified as a significant gap. Again, this is within the scope of *Kader's* responsibilities, but it is not currently being done with sufficient functionality to expect effective change for malnourished children.

Equipment job aids and supplies- Score 2.1 out of 3

Not all *Posyandu* have job aids or guidelines related to their work. Considerable investment appears to be required to ensure all equipment and supplies are present in all *Posyandu,* and given that anthropometry is the main activity, a lack of equipment could limit effectiveness and trust in service providers and thus reduce attendance over time. Only 45 per cent of *Posyandu* had flip charts, which indicates that there could be poor functionality of information, education, and communication (IEC) activities or that these are deprioritized.

Data collection and reporting – Score 2.0 out of 3

The information system *Posyandu* (SIP) appears to be a successful intervention that quickly automates data flow from the Posyandu up to the district and provincial levels, and time is spent during supervision on validating the data. Evaluations and key informant interviews suggest that the utilisation and feedback on the data collected require further improvement.

Supportive supervision- Score 2.0 out of 3

Most supervisions of Posyandu Kader activities by Puskesmas staff appear to take place during the *Posyandu* sessions. Considering that the *Kader* are expected to conduct home visits for malnourished children, it is suggested to include observation of service delivery as part of supportive supervision to ensure support is provided with quality. Supervision could offer an opportunity to improve the integration of multi-sectoral activities within the Posyandu, ensure coordination, and ensure that the most vulnerable families receive complementary services and support. Another recommendation includes reviewing supervision tools to ensure they promote compliance with a qualitative process, addressing the performance of individuals and teams.

Community engagement – score 1.8 out of 3

Community involvement in the *Posyandu* is a strength of the programme. They are engaged through various platforms such as the PKK and the Pokjanal and social welfare initiatives (Family Hope). However, the scope for multi-sectoral integration is largely unrealized, although this is a key focus of the National Strategy for Accelerating Stunting Prevention. Also, the targeting of at-risk families and individuals could be a shortfall. Fostering closer links with the social welfare system through the KPM could assist in prioritising efforts towards families with complex or multiple vulnerabilities.

Preservice and in-service training- score 1.7 out of 3

Preservice training is variable; the *Kaders* are not always trained at the start of their engagement as these training courses are organized in groups and may occur after they have been active. Refresher training is available, but not routinely, and depends on the budget availability of Puskesmas. The ratio of trainers to *Kader's* is unknown. There is no accreditation for *Kaders.* Establishing a standardized training process for Kaders and ensuring that a minimum orientation is provided before the commencement of service delivery is recommended. Practical skills can be gained on the job with mentoring and coaching, and this should also be formalized. As government training is standardized, there is scope for certification. Given the high respect for *Kader* and the high degree of investment in training by the government and civil society organizations, certification seems a viable option to improve the quality of training and service delivery. Furthermore, additional or ad hoc trainings should be tracked to motivate Kader to feel motivated that training contributes to personal advancement.

Incentives- Score 1.5 out of 3

A policy exists and is being implemented but is based on reimbursement for time spent in *Posyandu* sessions only and is considered inadequate to cover the opportunity costs of participation. Incentivizing this group-based activity may inadvertently demotivate *Kader* from conducting home visits. Given the strong team-based approach in *Posyandu and Puskesmas,* a performance-based financing approach would seem to be a good fit and should be based on targeting families with risk factors for undernutrition as well as those children who are currently underweight to promote their uptake of multisectoral programmes. Incentive packages should encompass all activities, including home visits. If new funding sources cannot be identified, non-financial incentives could include offering opportunities for advancement or employment, additional training, and retention funds for long service.

Role specification and recruitment - score 1.3 out of 3

Although there is a set of criteria for selecting *Kaders,* most are directly appointed by the head of the village. There is no written agreement with health authorities as the *Kaders* are not formally under the control of health authorities. The key improvements that can be made in this area would be to formalize a transparent recruitment process, improve the clarity of selection criteria, and ensure that there is equality and inclusion considerations made in selection that are non-discriminatory.

Opportunities for advancement and growth – Score 0 out of 3

Many aspects of the *Posyandu* programme could benefit from establishing a formalized volunteer ladder, competency frameworks, and certification. Many *Kaders* are longstanding volunteers, but to encourage young people to step up, access to civil service, or other educational and vocational training or employment opportunities would be a strong motivator and could allow them to employ youth in rural areas.

RECOMMENDATION TO ADDRESS GAPS FROM THE FUNCTIONALITY FINDINGS OF POSYANDU KADERS

- Improve delivery and targeting of services through home visits, along with training for effective interpersonal communication around barriers to nutrition services, including IYCF and maternal nutrition.
- Improve coverage of all essential services in the *Posyandu* through developing minimum standards.
- Improve incentives for *Kaders*, including non-financial incentives, such as opportunities for advancement, career progression or opportunities for income generation or employment, etc.
- Ensure the process for selection and recruitment of *Kaders* is transparent and community-driven, giving written agreements on roles and expectations, and certifying or accrediting trainings.

3.3. INCLUSION OF NUTRITION INTERVENTIONS IN COMMUNITY SERVICE PACKAGES

Before analyzing nutrition actions within the service package, we assessed the alignment of Direct Nutrition Interventions (DNIs) included in the national policies (refer to Table 5) with 17 nutrition evidenced-based nutrition interventions endorsed for CHWs drawn from the Lancet 2008[34], 2013[35] and 2021 DNIs[36], the SUN Framework Interventions[37], and Nurturing Care Framework Practice Guide.[38]

Notably, the Government of Indonesia has absorbed all but one of these interventions into existing country policy, except for maternal multiple micronutrient supplementation. The responsibility for delivering nutrition interventions is split between the *Puskesmas* frontline health professional service providers and the *Posyandu*.

Table 4: Nutrition-specific interventions in health and nutrition policies in Indonesia

	Direct nutrition actions inclusion within the country nutrition policies	In country policy? Y/N	Implementation responsibility
1	Vitamin A supplementation /fortification	Yes	Provided through Posyandu
2	Promotion of breastfeeding	Yes	Promoted through the Posyandu at counselling tables and home visits and in the Puskesmas
3	Management of severe acute malnutrition (SAM)	Yes	Provided by Puskesmas and or District/Provincial Hospital
4	Management of moderate acute malnutrition (MAM)	Yes	Screening, referral and follow-up home visits. Should be identified in Posyandu and through defaulter tracing
5	Complementary feeding	Yes	Complementary feeding practices are reinforced through the Posyandu activities.
6	Iodine through salt*	Yes	Promotion of the use of iodized salt at Posyandu
7	Zinc management for diarrhoea	Yes	Provided at Puskesmas
8	Iron/folic acid supplements for pregnant women	Yes	Provided by midwives at Posyandu/ Polindes/Puskesmas
9	Deworming	Yes	Provided at Puskesmas
10	Iron fortification of staples	Yes	N/A
11	Hand washing/hygiene	Yes	Promoted through Posyandu and formal health system
12	Multiple micronutrient powders	Yes	
13	Maternal multiple micronutrient supplementation	No	
14	Balanced energy-protein supplementation	Yes	Provided by Puskesmas and distributed at Posyandu
15	Folic acid supplementation for women of reproductive age	Yes	Iron folic acid tablets are provided to women of reproductive age through the health services Posyandu, which are also implemented in workplaces and schools.

Inclusion of nutrition interventions in health workforce service packages

We carried out a detailed analysis of the coverage of curative and preventive nutrition interventions provided at i) health centres and health stations and ii) through community health platforms to understand task-sharing across the system.

Figures 3 and 4 below depict the coverage of these key nutrition actions ranging from 0 (at the centre of the spider web) to 100 per cent (at the outside of the spider web) (see Annexes A4–A6 for source data and more detail).

In ***Figure 3,*** we show the inclusion of *curative* nutrition actions among formal health service providers at health centres and rural health stations and the two community service providers, including management of illness and wasting in children under five years. ***Figure 4*** shows *preventive* actions among community platforms.

The results show reasonably good coverage of preventive nutrition actions in professional health workforces at the Puskesmas level. However, many missed opportunities exist in the community service providers/ platforms. In Figure 3, we see good coverage of pre-pregnancy actions by the doctor and nutritionist but zero coverage by others. The doctor and midwife mostly deliver preventive nutrition actions in pregnancy, postnatal, and newborn, as well as the management of illness and waste.

Figure 3: Distribution of delivery of nutrition interventions by health service providers in Indonesia

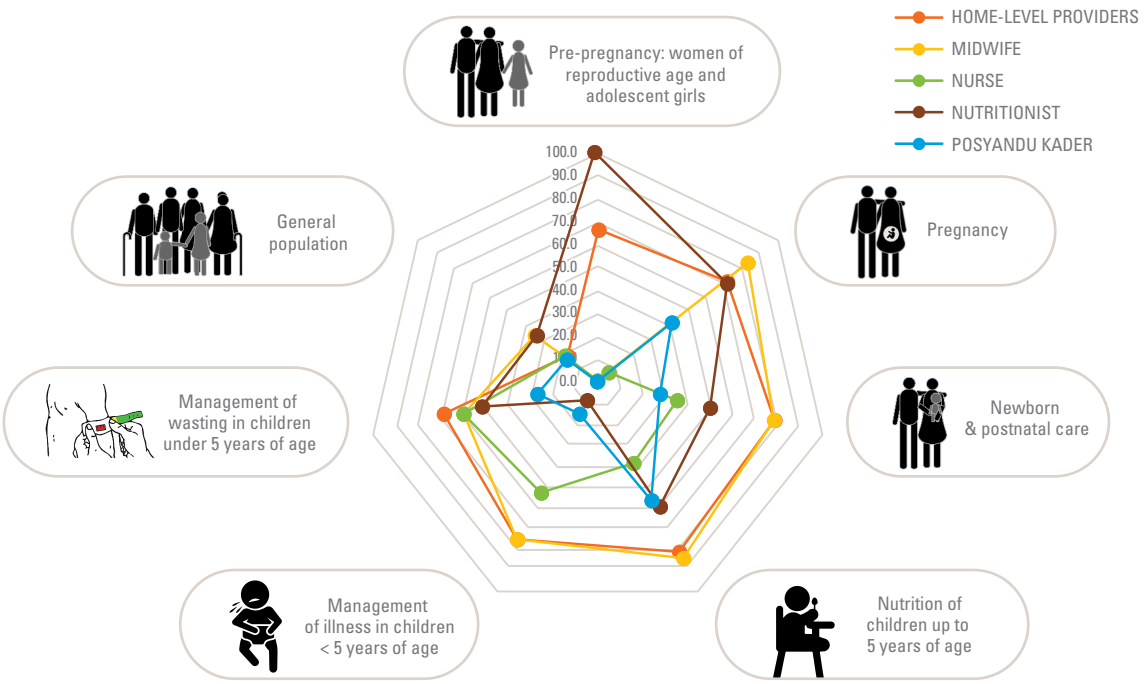
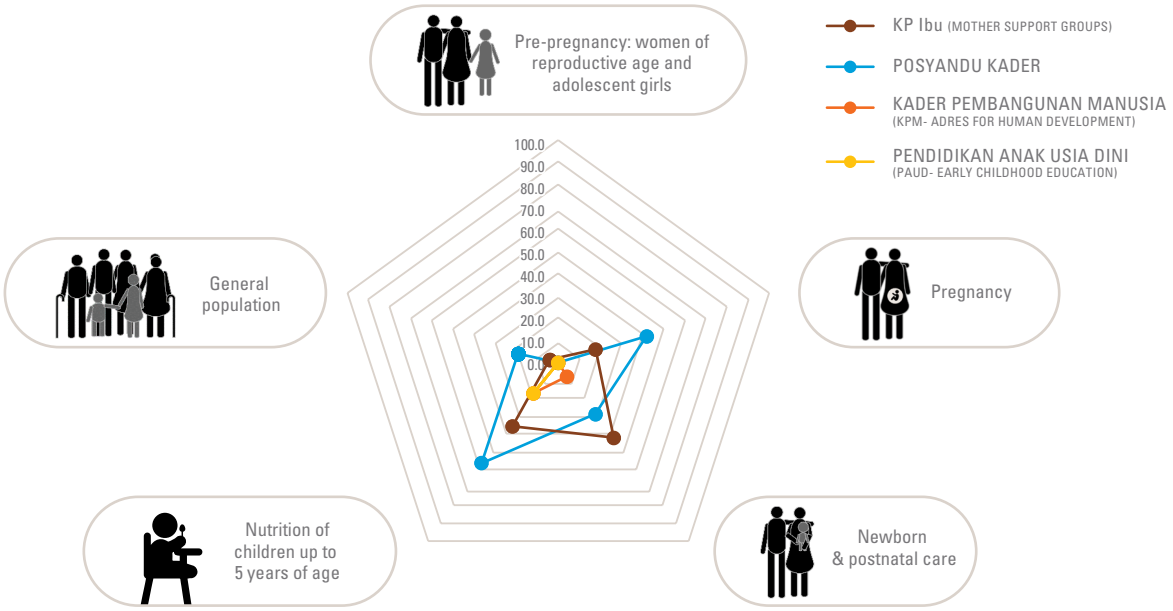


Figure 4 : Distribution of delivery of preventative nutrition actions in community-based platforms/service providers



While coverage of direct nutrition interventions is sparse across all CHS platforms, Posyandu have the most interventions (47 per cent) included in policy. MSGs (where established) cover 33 per cent of direct nutrition interventions, while the KPM only covers 10 per cent of nutrition actions. PAUD-HI also has a limited role in promoting nutrition, with only 8 per cent of actions covered. Overall, several nutrition actions are included but not to a sufficient degree to reach the population with adequate coverage of services.

Nutrition services delivered through the Posyandu platform.

Posyandu sessions are the main activity led by *Kaders,* typically run in their homes, with 85 per cent of surveyed locations found to be running one session per month. Only 35 per cent of *Kader* conducted any home visits in the last month, and most saw only 1–5 households for an average of 10 minutes at a time. Counselling on healthy diets during pregnancy and exclusive breastfeeding was recorded to be highly available at Posyandu (90 per cent and above), but counselling on early initiation of breastfeeding and availability of classes for pregnant women *(Kelas Ibu Hamil)* were reported to be much less available (3 per cent and 30 per cent respectively). Coverage of postnatal care at *Posyandu* was also suboptimal and ranged between 40–50 per cent, with counselling on exclusive breastfeeding available in only 53 per cent of sampled *Posyandu*. Postpartum vitamin A services were available in only 45 per cent of *Posyandu*.

There is also variation in health and nutrition services availability for children under five at the *Posyandu.* While all those surveyed provided child weighing services, only 74 per cent of facilities had measurement equipment available. Key interventions, such as vitamin A supplementation and deworming, are reported to be highly available at *Posyandu* (90 per cent and above), but only 63 per cent of *Posyandu* provide psychosocial stimulation. Although not a national programme, multiple micronutrient powders (e.g., Taburia) are reported to be available in only 3 per cent of *Posyandu,* most likely supported by donors and NGOs. *Kader* are more likely to advise carers to increase food intake in underweight children (89 per cent) as opposed to referring them to midwives (21 per cent) or *Puskesmas* (20 per cent) for further care.

OPPORTUNITIES FOR STRENGTHENING NUTRITION INTERVENTIONS IN COMMUNITY SERVICE PACKAGES

Table 5 below shows a list of essential nutrition interventions missing across all community platforms and service providers and could easily be integrated into the existing packages.

Table 5: Gaps and opportunities for scaling up delivery of nutrition services at the community level.

Intervention	Gaps and opportunities for inclusion in existing CHS service packages
Pregnancy: Prevention of anaemia	Nutrition promotion for women of reproductive age and adolescent girls for prevention of anaemia is only addressed by the nutritionist and not by any of the community service providers. Including these interventions into one of the community cadre's services coverage can significantly increase coverage.
Low birth weight and infants at risk of poor growth and development	Additional supportive care and monitoring of vulnerable infants, including management of nutritionally at-risk infants and their mothers and the support of kangaroo mother care for low birthweight/small infants, were gaps across the workforce, below the level of a medical doctor. Task-sharing of this service with service providers, including village nurses, midwives, and Kaders, would contribute to consistent growth and supportive care post-discharge
Complementary feeding	Food and cooking demonstrations are not included in Posyandu sessions or parenting groups held at PAUD. There are gaps in promoting behaviour change via the PAUD platform on complementary feeding, hygiene, and disease prevention. Adding these interventions into PAUD sessions may improve dietary diversity levels in young children. This session could also be used as an opportunity to counsel and support families with children with moderate wasting using local foods or supplementary foods.
Child wasting	Community-based screening for wasting using MUAC appears to be a gap across the board, and the scale-up of Family-led MUAC should be considered. One study looking at screening for SAM by community service providers reported very low coverage (17 per cent at baseline) due to insufficient community engagement, with significant improvement via engagement of community actors and systems.[13] There are multiple opportunities for community service providers to improve the uptake and effectiveness of SAM treatment, for example, via individual supportive counselling to improve infant feeding and promote hygiene, warmth, stimulation, and play. These activities appear to take place only at the facility. It is recommended to consider designating severe wasting as a trigger for assessment at the household level for Kader.

4 ANALYSIS OF FINDINGS

Indonesia has made progress in economic growth and human development. Still, more can be done to further reduce stunting and wasting of children under five years, which stand at 21.4 per cent and 7.7 per cent, respectively.[7] Wasting and stunting are mainly concentrated among low-income, rural, and marginalized groups, although there are strategic efforts to reduce these inequities through pro-poor programmes and national health insurance.

While the national community-based healthcare system, particularly the Posyandu, has been successful in combating undernutrition, recent evaluations have identified areas where the programme implementation could be improved to expedite stunting reduction. The reform of the community-based health system for nutrition actions was a key recommendation of a recent progress evaluation on stunting in Indonesia.[19] Moreover, community service providers' workload and incentive structure, especially the Kader, do not allow them to fulfil the required tasks comprehensively. As a result, the reach and coverage of nutrition interventions at the community level is still low.

The Government of Indonesia initiated a National Strategy to Accelerate Stunting Reduction (2018–2024).[14] This strategy emphasizes the convergence of the government programme from the national to subnational level, including the village level, and a village fund instrument was also created to finance rural development activities. All essential nutrition actions have been adopted in the country, except for maternal micronutrient supplements. The formal health sector is primarily responsible for delivering nutrition-specific services but with limited coverage and quality.

4.1. PLATFORMS AND CADRES

Finding 1: Three community platforms are critical in delivering nutrition services in Indonesia. The platforms are the Posyandu, Holistic Integrative- Early Childhood Education (HI-ECE) (Pusat Pendidikan Anak Usia Dini -Holistik Integration (PAUD-HI)) and Mother Support Groups (MSGs). Of the three platforms, Posyandu and PAUD-HI are the most sustainable platforms for scaling up the delivery of nutrition services at the community level.

These platforms and related cadres are inextricably linked in their work in the community, often with the same cadre, usually the *Posyandu Kader,* working across all platforms. They are government-led with a stable, supportive policy environment; they share common goals and enjoy strong community support and participation. They are primarily financed through various domestic sources, more recently and increasingly through the village fund. Still, budgets are limited, and more investment is required to resource their operations effectively. The village fund is a promising fund for sustainable financing.

Finding 2: Less than 50 per cent of community nutrition interventions are currently being delivered through community platforms in Indonesia.

The Government of Indonesia has absorbed all but one of the globally recommended essential nutrition interventions into existing country policy, except for maternal multiple micronutrient supplementation and deworming for pregnant women and adolescent girls. However, they are predominantly provided by the formal health sector professional health workforces in *Puskesmas and Polindes,* with the village midwife taking a large portion of that responsibility. Nevertheless, the coverage service provision by the health workforce needs to be improved, with *Puskesmas* covering multiple villages and tens of thousands of people.

As such, there are many missed opportunities in delivery through community-based service providers and platforms, making it unlikely that preventive interventions will reach the most vulnerable who do not attend or participate actively in the formal health sector. In many contexts, immunization is the key motivation to participate in preventive health services, so mothers may not prioritize attendance once the child has completed basic immunizations (from 9 months onwards)

Finding 3: The KPM is a promising approach to promote convergence and enhance coordination of nutrition interventions across the various community platforms and service providers.

The existing linkages across the platforms are a great strength. However, attention must be paid to avoid overlap and duplication of activities, which might add to the service providers' already high workload, thereby limiting their effectiveness. Promoting convergence through the KPM platform is a promising approach to enhance the coordination of activities across the various platforms and encourage community ownership and participation. As an employed and trained workforce living in the community, they can support the PAUD-HI and MSG activities and liaise with *Posyandu* to provide additional oversight and advocacy for nutrition activities.

Finding 4: Improving existing community-based health and nutrition services must prioritize targeting services to vulnerable households and conducting home visits.

Across the platforms, we identified limited emphasis and missed opportunities for home visits and targeting vulnerable households. Household-level support and inadequate interventions targeting the most vulnerable households could limit progress towards reducing undernutrition.

The *Posyandu Kader* provides most nutrition services at the community level. Their predominant mode of service delivery is through group-based growth monitoring, counselling, and health care sessions (provided by health professionals), with limited home visits to trace defaulters or target families. The Posyandu sessions include one for counselling and one for IYCF and health interventions; these activities do not appear to target the mothers most needing support (e.g., during the first 1,000 days). Moreover, the sessions do not appear to be delivered in the form of SBCC, based on dialogue methodology, known to be the most effective approach, in which individuals can identify and address their own barriers to specific practices.[41] Thus, strengthening

home visits to provide targeted nutrition support for vulnerable families at the household level *Posyandu Kader* would be beneficial in reinforcing behaviours taught at the group sessions and providing individualized counselling support.

Many children above nine months tend to miss the monthly Posyandu services because parents need to see an urgency to bring them to *Posyandu.* From the age of 2 years, children enter ECD centres of PAUD; participation is voluntary and is not associated with social welfare benefits. MSG and KPM conduct targeting of vulnerable households. Extending this approach to *Posyandu* and PAUD-HI services can promote the uptake of multisectoral programmes by families with risk factors for undernutrition and children diagnosed as underweight or wasted.

Finding 5: *Posyandu Kader's effectiveness could be further enhanced by developing a minimum service package of interventions.*

Although the *Posyandu Kader* provides most nutrition interventions in the community, they only offer between 40 and 50 per cent of possible direct nutrition interventions for pregnant women and children under 5, respectively. There is considerable variation in providing health and nutrition services for children under five at the *Posyandu*. For example, only 35 per cent of *Kader* conducted any home visits in the last month, counselling on healthy diets during pregnancy and exclusive breastfeeding was reported to be highly available at *Posyandu* (90 per cent and above), but counselling on early initiation of breastfeeding and availability of classes for pregnant women were reported to be much less available (3 per cent and 30 per cent respectively).

The *Kader* seems to have a high workload, although this was rated as reasonable in the functionality assessment; however, given the limited number of working hours (5 to 12 hours per month) and low incentives, it would be essential to review and set realistic goals of how many more tasks they can accommodate to ensure their continued effectiveness.

The *Posyandu* management committees (*Pokjanal Posyandu*) have a weaker role than in other contexts: they are not responsible for achieving goals and targets or ensuring the quality and coverage of community-based nutrition interventions. Although the *Posyandu Kaders* and *Pokjanal* have opportunities to influence the village fund and local nutrition financing, we did not specifically identify formal structures for local-level advocacy for nutrition. However, there are engagement processes around the use of village funds in which community members could participate.

Finding 6: Harmonizing training, reporting systems, supervision, and quality assurance approaches across the community platforms could significantly enhance their performance.

Standardized training curricula for all service providers exist except for the KPM. However, the standardized training is not complemented by a standardized service package. Since 2022, MoH has introduced 25 basic competencies for cadres covering the life cycle, including Posyandu management, recording, reporting, and home visits. These 25 basic competencies have been widely disseminated since early 2023 and Posyandu Kaders in several regions have begun to receive training.

Developing a standardized service delivery package for each cadre would ensure comprehensive coverage in delivering essential nutrition interventions at scale through the community platforms. Likewise, each platform has an independent reporting system.

Harmonization of the information collected through each platform is essential to avoid duplication in reporting. In addition, current reporting by all the service providers is geared towards upstream reporting requirements. The utilisation of the data collected would be beneficial for local planning and community mobilisation.

Our findings indicate that supportive supervision and quality assurance of the service delivery in all platforms could be strengthened. Only MSG have a standardized supervision format with coaching, although supervision was reported to be light touch in practice. The midwife supervises the Posyandu Kaders, but this often occurs during *Posyandu* sessions in a group and is dominated by treatment activities rather than coaching and mentoring, and the ratio of supervisors is too high for quality support. Supervision of PAUD teachers is limited to administrative completeness, performance appraisal and equipment; supervisors need to provide coaching. We did not find any information related to the supervision of the KPM.

4.2. NUTRITION INTERVENTIONS

Finding 7: There are critical gaps in services for early detection and referral of children with wasting, identification, and support of infants at risk of poor growth and development and their mothers across all platforms.

Among community-based service providers and platforms, there is limited inclusion of services for identifying and referring children with wasting, disability, or infants at risk of poor growth and development.

Although coverage of wasting services is on the rise, the lack of inclusion of MUAC screening, including Family-MUAC, means that uptake will continue to be low without significant community mobilisation.[13] At the time of data collection for this study, there was no cadre supporting the management of MAM. Supplementary food was provided, often coupled with infant and young child feeding (IYCF) counselling. However, the Ministry of Health launched a local supplementary food programme targeting children with MAM who are underweight and have other forms of poor growth in May 2023.

There are multiple roles that community-based providers can play to improve uptake and effectiveness of management of wasting, for example, assessment *in the household for root causes* to enable individualized supportive counselling and improve infant feeding, promotion of hygiene, warmth, stimulation, and play. These activities mainly occur at the facility; the village midwife may have some role in household-based care.

Supporting families to measure the MUAC of their children (Family-led MUAC[47]) could help identify children not reached with growth monitoring. In addition, wasting could be used as a trigger for a comprehensive assessment of household food security, caring practices, and the environment led by the Posyandu Kader, and it could promote a targeted multisectoral response from the services provided by the community platforms.

Finding 8: The promotion and uptake of multisectoral nutrition-sensitive interventions at the community level are limited.

Indonesia's community health policies emphasize achieving universal coverage, and social safety nets are linked to access to health care (and education). However, the coverage of multisectoral nutrition-sensitive interventions is limited. The role of the KPM in convening entities in the community between health, WASH, nutrition, and social welfare is a promising new initiative but is yet to be fully realized. The PAUD-HI platform could also serve as the integration point, enabling vulnerable families to access nutrition-sensitive interventions through a targeted group programme. Another social welfare programme, including non-cash food vouchers (SEMBAKO) and conditional cash transfers through the Family Hope Programme (Program Keluarga Harapan/ KPH) contingent on attendance at the Posyandu (among other services), are other platforms through which multisectoral interventions for vulnerable families, including those with children with disabilities could be scaled up.

Finding 9: Gender transformative approaches to nurturing care are being implemented through the community platforms, albeit on a small scale

Family engagement and use of gender transformative approaches are critical for behaviour changes to be better directed through a family-centred approach either because the social norms are handed down from older family members (e.g., infant food recipes) or because there are individual or family level barriers that cannot be addressed in a group setting. Participation of family members, including husbands/fathers, in the community activities for nutrition is limited, highly variable and highly dependent on local culture and values. However, men are increasingly encouraged to participate in community sessions, including accompanying their spouses to ANC service and in MSG activities. The PAUD-HI platform appears to have the scope to apply a gender transformative approach and family engagement through expanding services to include parenting classes (including fathers), e.g., Men Care style father groups. Parents often wait for their children to complete the ECE session; this is an ideal opportunity to engage parents in proactive nurturing care-related activities.

5 RECOMMENDATIONS

Indonesia's community based structure for delivery of health and nutrition services are well articulated in policy and national guidance, with substantial government leadership, diverse programmes, and systems, overlapping functions, and minimal fragmentation.

However, they could be reinforced in all four domains of the analysis framework: Figure 5 summarizes the key recommendations in each area.

5.1. STRENGTHENING NUTRITION IN CHS SERVICE PACKAGES

There is a need to strengthen the role of community service providers in delivering preventive nutrition interventions and nutrition-sensitive and nurturing care interventions, particularly at the household level.

Currently, community platforms deliver less than 50 per cent of essential nutrition interventions, most of which are implemented by the *Posyandu Kader*. The emphasis on service provision for preventive nutrition interventions lies heavily within the formal health sector. *Coverage* of interventions is, however, highly inadequate, resulting in missed opportunities to reach a greater proportion of the community with a comprehensive package of essential nutrition services. Five actions are crucial to strengthen the package nutrition services delivered through the community platforms:

1. **Develop a standardized package of interventions and allocate responsibility for delivering these across the community service provision platforms relevant to nutrition.** This package should include interventions currently not included in the community service package (counselling during pregnancy, identification and referral of wasted children and infants at risk of poor growth and development, and home follow-up of low birth weight and at-risk infants). Setting minimum standards for delivering interventions by each community platform will support improving the coverage of all essential services.

2. **Strengthen early detection, referral, and community-level follow-up of children with wasting and infants at risk of poor growth and development.** The focus should be placed on implementing existing wasting treatment policies more widely and within multisectoral nutrition actions to reduce stunting. Family-led MUAC would be the ideal strategy to ensure coverage with growth monitoring where children are not reached. Nevertheless, the provision of wasting treatment services is highly contingent on the national government's investment to produce local ready-to-use foods and therapeutic milks. As such, there is a need to advocate for improved funding allocation for wasting treatment.

3. **Expand the community health system's role in delivering nutrition interventions.** The role of community service providers in providing preventive and curative nutrition interventions should be strengthened to improve coverage and quality of nutrition services at the community level through the task-shifting provision of preventive actions for nutrition across the life course from health facilities to community-based programmes. Diversification of roles will support the effective delivery of different nutrition services via other modalities.

4. **Strengthen the implementation of nurturing care actions through PAUD-HI or MSG platforms.** Incorporating nurturing care interventions that promote safety and security, responsive caregiving, play, and psychosocial stimulation into parenting programmes is recommended. This approach is most effective when targeted towards developmentally and nutritionally at-risk children, at-risk pregnant women, as well as beneficiaries of social protection programmes. Doing so can help create an environment conducive to healthy child development and overall well-being.

5. **Strengthen nutrition SBCC in social protection programmes.** SBCC in pregnancy, newborn and in the first 1,000 days, especially for IYCF, should be targeted to 1,000 Hari *Pertama Kehidupan* (HPK) households, especially those receiving conditional cash transfers or those known to social services. Messages/services should be 'packaged' according to gestation or age.

5.2. IMPROVE DELIVERY STRATEGIES FOR COMMUNITY NUTRITION SERVICES

Community service provision platforms and programmes play a crucial role in providing services to individuals, families, and communities. Targeted support at the household level for the most vulnerable households effectively promotes behaviour change in nutrition and breastfeeding practices. Community service providers have a unique advantage as they are based in the communities they serve and have a good understanding of the challenges faced by families. Currently, nutrition services are primarily delivered through group-based approaches, with occasional community campaigns. Individualized support is not prioritized, which may limit the ability of community service providers to address undernutrition in vulnerable children. The current government strategy of ensuring universal coverage of Posyandu services is essential, but there is also a need to provide targeted support to vulnerable and marginalized households. Delivery strategies can be diversified by taking the following actions:

- **Promote identification and targeted nutrition support for vulnerable families** across all platforms. It might be helpful to define a criterion for targeting or for triggering targeted support, e.g., a household with a child with wasting, a disability, or a low birth weight infant. Additionally, home visits should be conducted whenever possible to supplement this effort. Moreover, all service providers should receive training that covers effective interpersonal communication and equips them with the skills to identify social determinants of health and underlying factors contributing to poor nutrition and growth and development in children and link them with appropriate services. During *Posyandu* services, screening for undernutrition and growth monitoring should be used to identify vulnerable households that could benefit from more intensive support beyond group counselling. A timely and targeted home visiting strategy for households with children in the first 1,000-day period should be implemented to support key moments in IYCF practice. Lastly, *Kader's* support to children and caregivers with disabilities, and at-risk children under six months should be emphasized with a focus on addressing breastfeeding problems.
- **Introduce social behaviour change communication (SBCC).** Along with group-based services, we recommend using SBCC, which is based on dialogue methodology, specifically targeting vulnerable households. This approach has proven to be one of the most effective health counselling methods.[41]
- **Further, leverage the KPM cadre to promote convergence of nutrition interventions** delivered through the various CHS platforms and service providers to avoid duplication and maximize the effectiveness of existing linkages in support of vulnerable families.

5.3. IMPROVE THE EFFECTIVENESS COMMUNITY-BASED SERVICE PROVIDERS IN THE DELIVERY OF NUTRITION SERVICES

Our findings show that the capacity of the existing community platforms and cadres to deliver nutrition is currently not being utilized at its full potential and that its effectiveness could be further enhanced in line with standards set forth by the WHO guideline on health policy and system support to optimize community health worker programmes. Indonesia currently has some strong guidance documents for community service delivery, but we recommend a review of existing policies to strengthen the areas listed below. However, for these actions to truly make a difference, they must be supported and legitimized by national health policy.

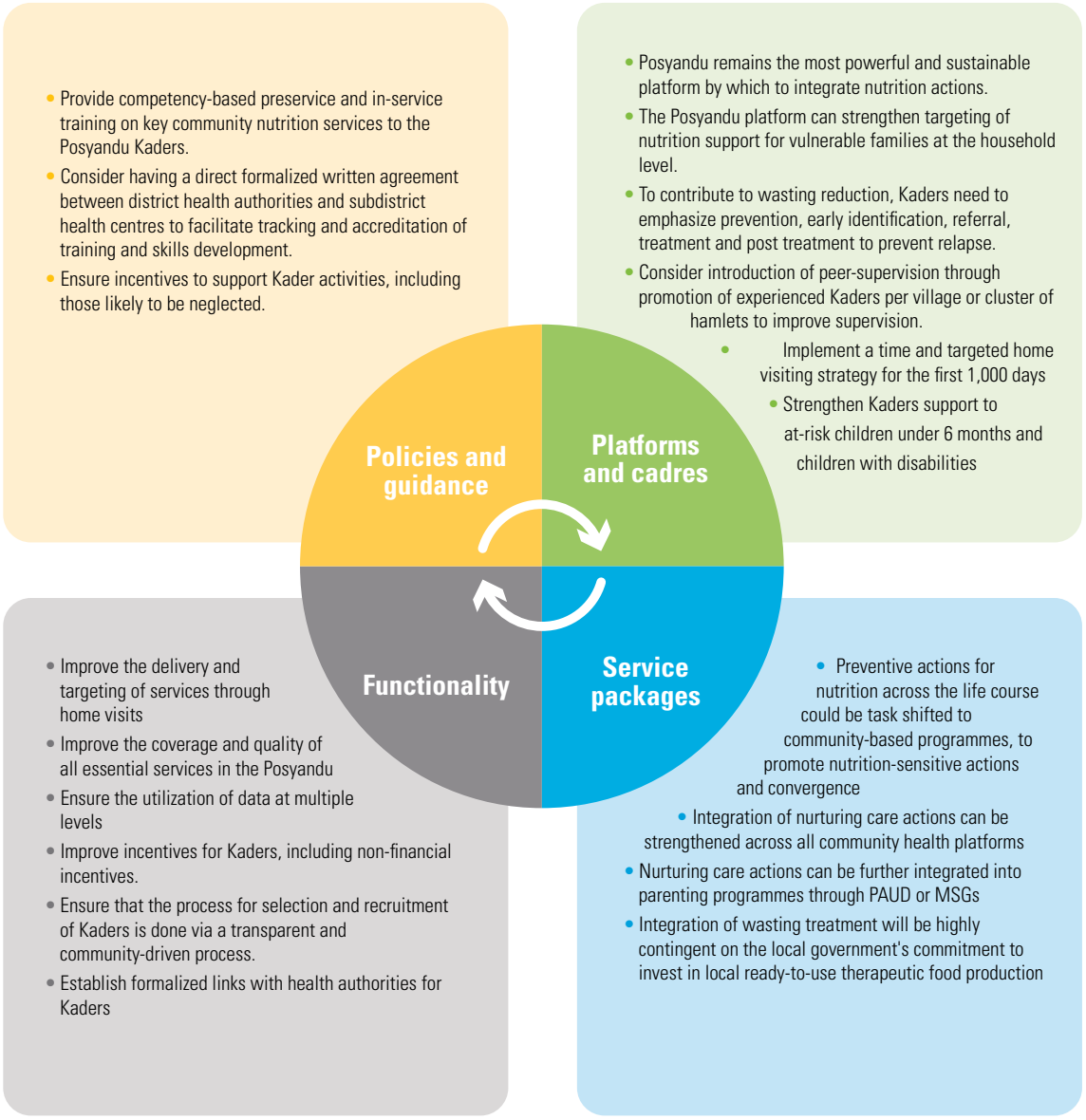
- **Maximize the effectiveness of the Posyandu Kader.** Posyandu remains the most suitable and sustainable platform to integrate nutrition actions. However, there are still significant gaps and opportunities for improvement. Further alignment with the WHO guidelines for health policy and systems to strengthen community health workforces will maximize their effectiveness. The current workload and incentive structure do not allow them to fulfil the required tasks comprehensively. An in-depth review of their roles and responsibilities, incentives, and providing competency-based pre-service and in-service training is recommended. Incentives for *Kaders* should include non-financial incentives, such as opportunities for advancement, including accrediting training and skills development over time, career progression or opportunities for income development. Focus should be provided to incentivize support for *Kader* activities likely to be neglected (e.g., home visits).

- **Improve supportive supervision of Posyandu Kader and other service providers delivering nutrition services.** The supervision systems for the community service providers were found to be weak and need strengthening. Specifically, the *Posyandu Kader* suffers from minimal meaningful supervision and coaching due to the many *Kader* and *Posyandu* posts. To improve this situation, it is recommended that a tier or team-based supervision approach be established, whereby more experienced *Kader* can work as peer supervisors for a village or cluster of hamlets, with a maximum of ten *Posyandu* posts per supervisor. Additionally, there should be a review of existing supervision tools to ensure compliance with minimum standards (yet to be developed) and to address the performance of individual cadres and platforms.

- **Consider formalizing links with health authorities to recruit and train Posyandu Kaders.** To enhance the reach and quality of *Posyandu* services and ensure oversight from health authorities, it's advisable to consider formalizing links with health authorities in selecting and training *Kaders* in the medium to long term. *Kaders* should be given written agreements certifications, and tracked participation in training and experience. In addition, expanding the role of the *Pokjanal Posyandu* committee in setting and monitoring *Posyandu* performance targets can significantly impact improving health outcomes for local communities.

- **Harmonize reporting across all the community service providers and platforms to avoid duplication of efforts.** Maintaining consistency in reporting across all CHS platforms is crucial, given that each has its own separate data system. This will help avoid redundant efforts and ensure everyone is on the same page. In addition to reporting at the upstream level, it's equally important to use the data at the local level for planning and monitoring the quality and reach of services.

Figure 5: Summary of recommendations from the findings across the analysis framework



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ANNEXES

ANNEX A1: DATA COLLECTION AND ANALYSIS TOOLS

Specific tools were adapted from the published tools and guidelines listed below to help analyse the CHS. Tools used to collect the data for this study are available on request from the UNICEF Country Office.

- USAID Community Health Systems Catalogue[43] ➔ Used as the foundation tool for programme characteristics (Section 3.3. and the CHS Community Health System Reference Guide)
- SPRING Nutrition Workforce Assessment Tool[44] ➔ Used to map out task-sharing among health and community service providers (Section 3.4 and 3.5)
- FANTA Nutrition Advocacy 'PROFILES' tool[45] ➔ Used to assess nutrition indicator coverage (Section 3.1)
- Nutrition Program Design Assistant: A Tool for Program Planners (NPDA), 2015[46] ➔ Used to define thresholds for public health concern in section 3.1.
- WHO Indicators for assessing IYCF practices: definitions and measurement methods[47] ➔ used in indicator definitions
- CHW AIM[19], WHO CHW policy guidelines[48], CHMC AIM[20] ➔ used to develop functionality and quality standards for CHWs and CHMCs (Section 3.5)
- Implementation quality assurance tools (IQA)[49] ➔ used as a guide for developing quality standards for other programmes such as MSGs, care groups, health committees, ECE programmes, etc.

ANNEX A2: AREAS OF ASSESSMENT IN POLICIES

Policy and systems (Tool 1)	Community platforms landscape (Tool 2)	Programmatic characteristics of community health platforms and service providers (Tool 4A)
- Existence of community health policies + dates - Areas of policy covered - Service provider's platforms and groups - Civil society role, government role - Governance - Financing - Management/coordination - Quality systems - Multisectoral integration - Sustainability	**Community platforms/ service providers:** - Name - Type - Members and criteria - Employment status - Mode of operation - Health outcomes - Scope of work - Target groups - Key partners in implementation	- Level of community engagement - Role of government and health authorities - Leadership and platform structure - Multisectoral linkages - Sustainability - Quality assurance processes **Functionality - From CHW-AIM & WHO policy** 1. Role and recruitment 2. Training (pre- and in-service) 3. Accreditation 4. Equipment and supplies 5. Supervision 6. Incentives 7. Community involvement 8. Opportunities for the advancement of data 9. Linkage to National Health Systems **Other areas** - Coverage - Targeting of vulnerable groups - Workload - Opportunities for advocacy - Social influence (groups) - Family influence & gender transformative value

ANNEX A3: POLICIES AND DOCUMENTS INCLUDED IN THE REVIEW

The following policies and guidelines were used in this analysis, identified in the call for documents.

DOCUMENTS USED IN THE INDONESIA STUDY

Government policies, decrees and guidelines

- Ministry of Health Decree No. 43/2019 about Primary Health Centre (*Puskemas*)
- Ministry of Health Decree No. 4/2019 about Technical Standard of Quality Assurance of the Minimum Service Standard for Health Care
- Ministry of Home Affairs Decree No. 19/2011 about Guideline to Integrate Basic Social Services in the Integrated Health Post (Posyandu)
- Ministry of Health, 2011, Guideline of Integrated Health Post (Posyandu) Management
- Head of BKKBN Decree No. 12/2018 about Management of BKB HI
- Technical Guideline of PAUD-HI by Ministry of Education and Culture 2015
- Ministry of Education and Culture Decree No. 22/2020 about Strategic Plan 2020-2024
- Ministry of Health, 2017, Guideline of Community-based Nutrition Recording and Reporting (*Pelaporan dan Pencatatan Gizi Berbasis Masyarakat*/e-PPGBM),
- Ministry of Health, 2012, Guideline of Establishment and Monitoring of Breastfeeding Supporting Group
- Ministry of Home Affairs Decree No. 36/2020 about Implementing Regulation of the Presidential Decree No. 99/2017 on the Family Welfare and Empowerment Movement (PKK)
- Ministry of Home Affairs Decree No. 18/2018 about Village Community Body and Traditional Community Body
- Ministry of Social Affairs Decree No. 25/2019 about Community Youth Organization
- *Tim Penggerak PKK DKI* Jakarta, *Buku Panduan Dasawisma*
- Accreditation Guideline for Health Training
- Technical Guideline for Accreditation of Ministry of Health Polytechnic
- Law No 36/2014 about Health Workers
- National Guideline for Tuberculosis Management, 2020
- Public Health Programme Indicator of MOH National Strategic Plan 2020-2024
- Ministry of Health Decree No. 21/2013 HIV/AIDS Prevention
- Ministry of Health Decree No 67/2017 about TB Prevention
- Guideline for Prevention and Management of Malnutrition among Children Under 5, 2019
- Ministry of Health Decree No 46/2015 about Accreditation of Puskesmas, Primary Clinic, Private Practice for GP and Dentist
- Ministry of Health, 2019, Training Curriculum of Management of Undernutrition in Children Under Five
- Ministry of Health, 2020, Training Curriculum of TB Management for Health Workers in the Referral Health Facilities
- Ministry of Village, Development of Disadvantaged Regions, and Transmigration, 2018, Guideline of the Kader Pembangunan Manusia/KPM (Service providers for Human Development)
- Ministry of Village, Development of Disadvantaged Regions, and Transmigration, 2018, Pocket Book for Kader Pembangunan Manusia/KPM (Service providers for Human Development)
- Ministry of Education and Culture Decree No. 18/2018 about Provision of Early Childhood Education Service
- Ministry of National Development Planning Republic of Indonesia/ Development Planning Agency National BAPPENAS. (2018). National Action Plan for Integrative Holistic Early Childhood Development (RAN PAUD HI).
- National Development of the Republic of Indonesia/Agency
- National Development Planning (BAPPENAS).
- Ministry of Home Affairs Decree No. 54/2007 about Guideline for Establishment of Operational Working Group of Posyandu
- Ministry of Health, Pocket Book of Stunting Management for Posyandu Service providers (draft Feb 2021)
- Ministry of Health, Guideline of Stunting Management for Health Care Providers in Puskesmas (draft Nov 2020)
- Ministry of Health, Republic of Indonesia, 2019. Operating procedure for Mothers Groups Classes. ISBN 978-602-416-770-7;
- Ministry of Health, Republic of Indonesia, 2019. Mother Group Classes, Facilitators Handbook. (Pregnant mother and Toddler)

Evaluations:

- World Bank, 2018: Aiming High: Indonesia's Ambition to Reduce Stunting[21]
- World Bank, 2018: *Is Indonesia Ready to Serve?: An Analysis of Indonesia's Primary Health Care Supply-Side Readiness*[22]
- Quantitative Service Delivery Assessment 2019
- CISDI, 2019. Technical study: Implementation of Toddlers' height measurement activities and integrated stunting data management in Indonesia.[50]

ANNEX A4: TASK-SHARING OF NUTRITION INTERVENTIONS BETWEEN PROFESSIONAL HEALTH WORKERS AND CHS (IN PERCENTAGE)

	HEALTH SERVICE PROVIDERS				COMMUNITY-BASED SERVICE PROVIDERS			
	Doctor	Midwife	Nurse	Nutritionist	MSGs (KP Ibu)	Posyandu cadres	KPM	PAUD
1. Pre-pregnancy - DNI	66.7	0.0	0.0	100.0	0.0	0.0	0.0	0.0
2. Pregnancy - DNI	54.5	81.8	9.1	63.6	27.3	36.4	0.0	0.0
2. Pregnancy - non-DNI	100.0	83.3	0.0	83.3	0.0	50.0	0.0	0.0
3. Newborn and postnatal care - DNI	100.0	100.0	42.9	57.1	71.4	28.6	14.3	0.0
3. Newborn and postnatal care - non-DNI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Nutrition and care of children up to 5 years of age DNI	82.4	88.2	29.4	58.8	47.1	64.7	17.6	11.8
4. Nutrition and care of children up to 5 years of age non-DNI	83.3	83.3	66.7	66.7	0.0	33.3	16.7	33.3
5. Management of illness in children under five years DNI	90.0	90.0	60.0	10.0	10.0	20.0	0.0	0.0
5. Management of illness in children under five years non-DNI	75.0	75.0	75.0	0.0	0.0	0.0	0.0	0.0
6. Management of wasting in children under five years DNI	66.7	66.7	66.7	66.7	0.0	50.0	0.0	0.0
6. Management of wasting in children under five years non-DNI	57.1	42.9	42.9	42.9	0.0	0.0	0.0	0.0
7. General population nutrition actions	14.3	28.6	14.3	14.3	0.0	14.3	0.0	0.0

*DNI= Direct nutrition intervention
**Non-DNI: = Interventions related but not part of the direct nutrition interventions

Note: coverage in the table above is calculated as the number of interventions mentioned in the service package over the number of possible actions described in A4

ANNEX A5: INCLUSION OF NUTRITION-SENSITIVE (HEALTH) AND NUTRITION-SPECIFIC PREVENTIVE SERVICES IN COMMUNITY SERVICE PACKAGES

Lifecycle stage		Nutrition interventions included in service package (n=88)	HEALTH SERVICE PROVIDERS				Community-based service providers				Coverage of interventions
			Doctor (Dokter)	Village midwife (Bidan)	Village nurse (Perawat)	Nutritionist (TPG)	Mother support groups (KP Ibu)	Posyandu Kaders (CHW)	Human Development Workers (KPM)	ECE (PAUD)	
Pre-pregnancy	DNI	**1. Pre-pregnancy: Three direct nutrition interventions**									
		1.1 Promote improved nutrition for adolescent girls to prevent anaemia	No	Unk	No	Yes	No	Unk	No	No	■1
		1.2 Intermittent iron supplementation alone or combined with micronutrients	Yes	No	No	Yes	No	No	No	No	■■2
		1.3 Promotion of improved food and nutrient intake for adult women	Yes	Unk	No	Yes	No	Unk	No	No	■■2
Pregnancy	DNI	**2. Pregnancy: 11 direct nutrition interventions, six nutrition actions**									
		2.1 Promotion of nutrition/dietary practices during pregnancy	Yes	Yes	No	Yes	Yes	Yes	No	No	■■■■■5
		2.2 Distribute iron/folic acid supplementation for pregnant women	Yes	Yes	No	Yes	No	Yes	No	No	■■■■4
		2.3 Educate/promote iron/folic acid use in pregnancy and postnatal period	Yes	Yes	No	Yes	No	Yes	No	No	■■■■4
		2.4 Provide deworming to reduce the burden of intestinal parasites in pregnancy	Unk	Unk	Unk	Unk	No	No	No	No	0
		2.5 Distribute maternal multiple micronutrient supplements	No	Yes	No	Yes	No	No	No	No	■■2
		2.6 Educate/promote maternal multiple micronutrient supplement use	No	Yes	No	Yes	Yes	No	No	No	■■■3
		2.7 Educate/promote the use of iodized salt	Unk	Unk	No	Yes	No	Unk	No	No	■1
		2.8 Educate/promote prevention of malaria in pregnancy (Long-lasting insecticide-treated nets, environmental	Yes	Yes	No	No	Yes	Yes	No	No	■■■■4
		2.9 Treatment of malaria in pregnancy (test and treat)	Yes	Yes	Yes	No	No	No	No	No	■■■3
		2.10 Educate/promote calcium supplementation in pregnancy	No	Yes	No	No	Unk	No	No	No	■1
		2.11 Provide balanced energy-protein supplements for underweight pregnant mothers	Yes	Yes	No	Yes	No	No	No	No	■■■3
	non-DNI	2.12 Monitor weight gain during pregnancy	Yes	Yes	No	Yes	Unk	Yes	No	No	■■■■4
		2.13 Measure pregnant women's height	Yes	Yes	No	Yes	No	Yes	No	No	■■■■4
		2.14 MUAC screening for pregnant women	Yes	Yes	No	Yes	No	Yes	No	No	■■■■4
		2.15 Provision of calcium supplements for pregnant women	Yes	Yes	No	Yes	No	No	No	No	■■■3
		2.16 Conduct haemoglobin test for pregnant or lactating women	Yes	Yes	No	No	No	No	No	No	■■2
		2.17 Testing iodized salt	Yes	No	No	Yes	No	No	No	No	■■2
Newborn care	DNI	**3. Newborn and postnatal care: seven direct nutrition interventions, six nutrition actions**									
		3.1 Ensure or do delayed cord clamping at birth	Yes	Yes	No	No	No	No	No	No	■■2
		3.2 Promote/support timely initiation of breastfeeding within one hour of birth	Yes	Yes	Yes	Yes	Yes	Unk	No	No	■■■■■5
		3.3 Verify and support correct positioning and attachment during breastfeeding	Yes	Yes	No	No	Yes	Unk	No	No	■■■3
		3.4 Ask about and manage breastfeeding problems	Yes	Yes	No	No	Yes	Unk	No	No	■■■3
		3.5 Promote exclusive breastfeeding during the first six months of life	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	■■■■■■■7
		3.6 Monitoring the nutritional status of lactating (postnatal) women (e.g., using MUAC)	Yes	Yes	No	Yes	No	No	No	No	■■■3
		3.7 Promote maternal nutrition during lactation/postnatal period	Yes	Yes	Yes	Yes	Yes	Yes	No	No	■■■■■■6
	non-DNI	3.8 Promote/support postnatal use of multiple micronutrient supplements for postnatal mothers	Yes	Yes	No	Yes	Yes	Unk	No	No	■■■■4
		3.9 Measuring and weighing new-borns/young infants	Yes	Yes	Yes	Yes	No	Yes	No	No	■■■■■5
		3.10 Using MUAC to screen for underweight infants under six months of age	No	Yes	No	No	No	Unk	No	No	■1
		3.11 Identification and referral of nutritionally at-risk infants (MAMI)	Yes	Yes	Yes	Yes	No	Yes	No	No	■■■■■5
		3.12 Additional supportive care and monitoring of non-breastfed infants	Unk	Unk	Unk	Unk	No	Unk	No	No	0
		3.13 Promote and support kangaroo mother care for low-weight/small infants	Yes	Unk	Unk	Unk	No	Unk	No	No	■1
		3.14 Additional support to at-risk mothers (adolescents, HIV-positive, MHPSS, etc.)	Unk	Unk	Unk	Unk	No	Unk	No	No	0

Lifecycle stage		Nutrition interventions included in service package (n=88)	HEALTH SERVICE PROVIDERS				Community-based service providers				Coverage of interventions
			Doctor (Dokter)	Village midwife (Bidan)	Village nurse (Perawat)	Nutritionist (TPG)	Mother support groups (KP Ibu)	Posyandu Kaders (CHW)	Human Development Workers (KPM)	ECE (PAUD)	
Nutrition and care of children up to 5 years of age		**4. Nutrition and care of children up to five years of age 17 DNI, 6 NA**									
	DNI	4.1 Distribute vitamin A supplements to children aged 6-59 months	Yes	Yes	Unk	Yes	No	Yes	No	No	■■■■4
		4.2 Promote vitamin A supplementation	Yes	Yes	Unk	Yes	Unk	Yes	No	No	■■■■4
		4.3 Promote/support the timely introduction of complementary foods at six months	Yes	Yes	Unk	Yes	Yes	Yes	Yes	No	■■■■■■6
		4.4 Promote/teach/demonstrate age-appropriate adequate complementary feeding	Yes	Yes	Unk	Yes	Yes	Yes	No	No	■■■■■5
		4.5 Educate/promote prevention of anaemia through local iron-rich foods	Yes	Yes	Unk	Yes	Yes	Unk	No	No	■■■■4
		4.6 Provision of intermittent iron supplementation 1-3 times a week for children	No	No	Unk	No	No	No	No	No	0
		4.7 Promote/teach/demonstrate hygienic complementary food preparation	Yes	Yes	Unk	Yes	Yes	Yes	No	No	■■■■■5
		4.8 Distribute of deworming tablets to children aged 1-5 years	Unk	Yes	Unk	Unk	No	Unk	No	No	■1
		4.9 Educate/promote hygienic practices for the prevention of intestinal parasites	Yes	Yes	Unk	Yes	No	Unk	No	Yes	■■■■4
		4.10 Provision of Preventive Zinc Supplementation	No	No	Unk	No	No	Unk	No	No	0
		4.11 Provision of multiple micronutrient powders	Yes	Yes	Unk	Yes	No	Yes	No	No	■■■■4
		4.12 Educate/promote the use of iodine through salt*	Yes	Yes	Unk	Yes	Unk	Yes	No	No	■■■■4
		4.13 Educate/promote household hygiene and handwashing with soap	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	■■■■■■■7
		4.14 Educate/promote on the prevention of malaria	Yes	Yes	Yes	No	Yes	Yes	No	No	■■■■■5
		4.15 Educate/promote on the prevention of diarrhoea	Yes	Yes	Yes	No	Yes	Yes	No	Yes	■■■■■■6
		4.16 Educate/promote full immunization for age	Yes	Yes	Yes	No	Yes	Yes	Yes	No	■■■■■■6
		4.17 Provide immunizations either during campaigns or routine care	Yes	Yes	Yes	No	No	No	No	No	■■■3
	non-DNI	4.18 Using scales to measure the weight of children up to 2 years	Yes	Yes	Yes	Yes	No	Yes	No	Yes	■■■■■■6
		4.19 Using length boards to measure the length of children up to 2 years	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	■■■■■■■7
		4.20 Using MUAC to screen for wasting during routine interactions	Yes	Yes	No	Yes	No	Unk	No	No	■■■3
		4.21 Screening children for bilateral oedema	Yes	Yes	Yes	No	No	No	No	No	■■■3
		4.22 Community-based MUAC screening (e.g., campaigns)	Yes	Yes	Yes	Yes	No	Unk	No	No	■■■■4
		4.23 Food and cookery demonstrations	No	No	No	Unk	Unk	Unk	No	No	0
		Total actions	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**57**	**Average actions: 3.3**
		Actions in the policy	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	
		Total actions included (Yes)	44	45	15	36	17	24	5	4	
		Total actions excluded but are in the policy	8	5	26	15	35	15	52	53	
		% Coverage of actions	**86**	**88**	**29**	**71**	**33**	**47**	**10**	**8**	

ANNEX A6: DELIVERY OF NURTURING CARE INTERVENTIONS BY COMMUNITY-BASED SERVICE PROVIDERS

	Nutrition actions in the service package (n=88)	COMMUNITY-BASED SERVICE PROVIDERSv		ADDITIONAL PLATFORMS	
		Mother support groups (KP Ibu)	Posyandu service providers	KPM	ECE (PAUD)
NUTRITION-SENSITIVE INTERVENTIONS	**2 Nutrition-sensitive and multisectoral strategies**				
	2.1 Promote/educate on healthy lifestyles for school-aged children and adolescents	No	Yes	No	No
	2.2 Promotion of IYCF/nutrition in social protection programmes	Unk	Unk	No	No
	2.3 Community-level action to enable access to staple food fortification	No	Unk	No	No
	2.4 Community-level action on biofortification and agronomic fortification	No	No	No	No
	2.5 Community-level activities to increase access to nutritious foods and diverse diets (market/ agriculture-based)	No	No	No	No
	2.6 Community-level activities to limit/enforce policy on marketing unhealthy food, sugar, and breastmilk substitutes	No	No	No	No
	2.7 Conduct nutrition interventions in schools	No	Unk	No	No
	2.8 Household food-security assessment	No	No	No	No
	2.9 Connecting families in need of agricultural support	No	No	No	No
	2.10 Poverty alleviation strategies – family-based support to access conditional cash transfers or income support	Unk	Unk	Unk	No
	2.11 Poverty alleviation strategies – group-based support to access conditional cash transfers or income support	Unk	Unk	Unk	No
	2.12 Community engagement for women's empowerment activities	Unk	No	Unk	Unk
	2.13 Community-level actions for WASH	Unk	Unk	Unk	Unk
	2.14 Promote/educate on food safety measures	Unk	Yes	Unk	Unk
NURTURING CARE	**Household level - preventive**				
	3.1 Educate/promote caregiver-led play/stimulation and responsive care for child development	No	Unk	No	Unk
	3.2 Educate/promote responsive feeding	No	Unk	No	Unk
	3.3 Educate/promote environmental health (clean air, safe water, sanitation, waste management)	No	Yes	Unk	Unk
	3.4 Educate/promote positive discipline (non-violent) and against child maltreatment	No	No	No	Unk
	3.5 Educate/counsel on prevention of injuries	No	Unk	Unk	Unk
	3.6 Assess/promote safe, hygienic play spaces	No	No	No	No
	3.7 Assess/promote birth registration	Unk	Yes	Yes	Unk
	Household level assess/refer/support				
	3.8 Assess/refer children at risk of violence or experiencing violence	No	Yes	Yes	No
	3.9 Assess/refer to caregiver mental health concerns (Mental Health and Psychosocial Support)	No	No	No	No
	3.10 Assess/refer children for suspected developmental delay	No	Yes	No	No
	3.11 Assess/refer for gender-based violence and abuse	No	Unk	No	No
	3.12 Provide psychosocial support for distress or Maternal Mental Health and/or gender-based violence	No	No	No	No
	3.13 Additional contact or supportive care for families or children identified with additional needs or at-risk	No	No	No	No
	Community-level actions				
	3.14 Interventions to promote positive engagement of fathers in ECD	Unk	No	No	Unk
	3.15 Community actions to facilitate access to social protection (e.g., health insurance cash transfers and income support)	Unk	Unk	Unk	Unk
	3.16 Community action to enable a safe environment for children (road safety, air pollution, protection from violence)	No	No	No	No
	3.17 Community engagement with duty bearers on needs of vulnerable families and children for Nurturing Care/ECD	Unk	Unk	Unk	No
	3.18 Community engagement to sensitize/social norms change for nurturing care	No	No	No	No
	3.19 Coordination/support for preschool education, activities, child care or playgroups	Unk	Unk	Yes	Unk
	Total actions	**33**	**33**	**33**	**33**
	Total actions included (Yes)	0	6	3	0
	% coverage of actions	**0.0**	**18.2**	**9.1**	**0.0**

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