Thematic Brief

Outcome Evaluation for the National Plan of Action for Nutrition Malaysia (NPANM) III

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1. Introduction

The National Plan of Action for Nutrition of Malaysia III (NPANM III, 2016–2025) has been the country's blueprint for tackling nutrition challenges, aiming to achieve optimal nutritional well-being for all Malaysians. Aligned with global commitments (e.g. Global Nutrition Targets 2025, SDGs 2030), NPANM III set out three primary objectives: (1) enhance the population's nutritional status, (2) reduce diet-related non-communicable diseases, and (3) strengthen food and nutrition security. As NPANM III neared its conclusion, the Ministry of Health (MoH) and UNICEF Malaysia commissioned an independent outcome evaluation (conducted May–October 2025) to assess how well the plan met its targets, identify implementation gaps, and draw lessons to inform Malaysia's next national nutrition strategy. This summary presents the evaluation's key findings and recommendations, focusing on policy-relevant insights for decision-makers.

2. Methodology Overview

Evaluation Design: The evaluation adopted a **mixed-methods, theory-based design** comprising two phases. **Phase 1** provided a comprehensive national-level analysis of NPANM III's results, using secondary data from MoH (including 2016 baseline and 2022/2024 National Health and Morbidity Survey data) to measure progress on all 49 outcome and numerous process indicators. This phase mapped outcome indicators to related interventions to examine causal pathways and assess overall achievements and gaps across NPANM III's four Areas of Work (AoWs). **Phase 2** was an in-depth thematic investigation of **Infant and Young Child Feeding (IYCF)** outcomes under AoW 1 (Maternal, Infant & Young Child Nutrition), an area where progress was notably limited. This deep dive focused on **two case study states – Kelantan and Pulau Pinang – representing a high-performing and a lower-performing context** for IYCF outcomes. Through this comparative subnational analysis, the evaluation explored why most IYCF-related targets were not achieved and what contextual factors, barriers, and enablers influenced implementation in different settings.

Data Collection: The evaluation team conducted a **desk review** of NPANM III documents (including progress reports and the 2021 Mid-Term Review), relevant surveys (e.g. NHMS 2022 & 2024), and partner research, to establish the factual record of activities, outputs, and outcomes. Qualitative insights were gathered through **key informant interviews (KIIs)** at national and state levels with stakeholders involved in NPANM III's design and delivery – including government officials, health providers, and programme implementers – particularly in the two focus states. Additionally, **collaborative outcome reporting (COR) workshops** were held in Kelantan and Pulau Pinang to validate preliminary findings with local stakeholders and capture diverse perspectives. These participatory workshops, along with the use of Most Significant Change stories, enabled stakeholders to contribute evidence and jointly interpret the results, thereby strengthening the credibility and utility of the findings. Overall, the evaluation's mixed methods and utilisation-focused approach ensured that quantitative trends were triangulated with qualitative evidence and that the findings would be practical for informing policy decisions.

3. Key Findings

Nutrition Outcomes and Target Achievement

Nationally, NPANM III's outcome targets saw **mixed progress**. Only about one-third of the plan's 49 outcome (impact) indicators were achieved or on track, while nearly half showed no progress and actually fell below baseline levels (the remainder lacked sufficient data). Notable **successes** included improvements in maternal and child nutrition and micronutrient outcomes – for example, anaemia among pregnant women declined significantly and met its 2025 target ahead of schedule, household food insecurity and iodine deficiency indicators improved, and adult hypercholesterolemia dropped. These achievements were aided by strengthened policies (e.g. salt iodisation regulations, sugar tax and food

labelling initiatives) and robust health service delivery in those areas. However, many **critical targets were missed**. Child undernutrition rates (stunting, wasting, underweight) showed little reduction, and **overweight/obesity and diet-related NCD indicators worsened or stagnated** over the decade. For instance, fruit and vegetable intake remained very low and adult overweight prevalence continued to rise, indicating NPANM III failed to curb unhealthy diet trends. Overall, the Plan **fell short of most impact targets**, with 43% of outcome indicators not achieved and about 25% lacking any recent data – pointing to significant gaps in effectiveness and in monitoring progress. External shocks like the COVID-19 pandemic likely exacerbated some negative trends (e.g. disruptions in nutrition services and household food security), making outcome improvements even more challenging during 2020–2022.

Implementation and Service Delivery

The evaluation found that **implementation of NPANM III was uneven and often incomplete**. Many planned interventions were only **partially implemented or delayed**, especially those requiring multi-sector collaboration. For example, initiatives to promote healthy diets and active living – such as expanding affordable healthy food markets, improving school meals, and enforcing "healthy cafeteria" guidelines – **were not fully rolled out**, corresponding with the lack of progress in diet quality outcomes. Likewise, a national stunting reduction strategy was developed, but only around 40% of states implemented the recommended actions in childcare centres, and many did **not conduct the intended parental education sessions** to prevent child undernutrition. Key service delivery programs were often **constrained by resource shortfalls** and capacity limitations: some state health departments faced critical **staffing gaps** (e.g. dozens of nutritionists and public health nurse vacancies in Pulau Pinang) and had overstretched personnel managing multiple programs. Although public-sector nutrition funding increased during the NPANM III period, operational budgets were frequently insufficient or poorly aligned with plan activities, leading to reliance on ad hoc funds and hindering the continuity of interventions. These constraints, compounded by COVID-19 disruptions, meant that even well-designed programs (such as breastfeeding support and community nutrition outreach) could not achieve full coverage. **Service delivery gaps** were also evident in the limited reach beyond the public healthcare system – NPANM III interventions seldom engaged private clinics/hospitals or non-health community platforms, leaving portions of the population (especially urban families using private care) outside the plan's reach. In summary, where NPANM III interventions were implemented with adequate resources and coverage, tangible outcomes were observed (e.g. states with strong clinic-based programs saw improvements in anaemia and exclusive breastfeeding). However, **incomplete implementation and capacity shortfalls** in other areas undermined overall effectiveness, highlighting the need for stronger operational planning, cross-sector partnerships, and investment in frontline delivery.

Equity and State-Level Variation

Progress under NPANM III varied widely across states and population groups, revealing significant equity challenges. Some states **met or even exceeded** NPANM III targets on specific indicators, while others fell far behind or regressed. For example, by 2022 only five states managed to achieve a key child nutrition target (not specified here), whereas several states saw indicators like underweight among under-5 children **worsen** during the plan period. Disparities often reflected differences in local capacities and context: states with stronger health infrastructure, more nutrition personnel, and active community engagement (including some less-developed states like Kelantan) generally reported better outcomes, whereas highly urbanised or resource-constrained states (e.g. parts of Selangor/Kuala Lumpur and East Malaysia) struggled to meet targets. The evaluation's case studies

underscored how **context-specific leadership and innovation influenced results**. In Kelantan, committed state leadership and grassroots initiatives (such as vigorous outreach and locally tailored programs) drove significant improvements in IYCF practices, demonstrating that proactive local governance can accelerate progress. In contrast, Pulau Pinang, despite a generally strong health system, faced unique obstacles – including health workforce shortages and difficulties integrating extensive private-sector healthcare – that hindered the implementation of IYCF interventions. **Rural-urban and socio-economic disparities** in nutrition also persisted: poorer and rural communities, as well as certain marginalised groups, benefitted less from NPANM III's gains. A critical finding is that the plan lacked an explicit equity focus in its monitoring – **disaggregated data by income, ethnicity, or disability were not systematically collected**, making it hard to assess who was left behind. Consequently, there was limited adaptation of strategies to target the most vulnerable populations. The stark state-by-state variations and unknown intra-state inequities highlight that a **"one-size-fits-all" approach has fallen short; tailored strategies and resources will be needed in the** future to ensure more **inclusive, equitable nutrition outcomes** nationwide.

Governance and Coordination

Governance mechanisms under NPANM III proved to be a weak link, limiting effective coordination and accountability. The plan's design did not include a clear results framework linking each activity to expected outcomes, which obscured lines of responsibility for achieving impact. While multi-sectoral committees (such as the National Nutrition Council and technical working groups) were established, they did **not consistently enforce accountability or drive problem-solving** when targets were missed. For example, even though no state met the plan's low birth weight reduction goal, the evaluation found little evidence of mid-course policy adjustments or remedial actions to address this shortfall. Roles and expectations across ministries and levels of government often remained **unclear or unmet**, indicating that high-level commitments did not always translate into effective action on the ground. Furthermore, **multi-sector collaboration was limited in practice**. Nutrition-specific programs were largely driven by the health sector alone, with minimal integration of other sectors that influence nutrition (agriculture, education, social protection, WASH, etc.). **Private sector engagement** was especially lacking – NPANM III did not systematically bring private healthcare providers, food industries, or community organizations into its ambit. This gap was evident in interventions like the Baby-Friendly Hospital Initiative (BFHI) and IYCF counselling, which barely extended to private hospitals/clinics, thereby omitting a large segment of mothers and infants from those initiatives. Similarly, the plan paid insufficient attention to underlying determinants of nutrition outside the health sector: for instance, water and sanitation improvements and poverty alleviation efforts were not formally linked to NPANM III, even though they are crucial for sustained nutrition gains. The **lack of an integrated, whole-of-government approach** and enforceable accountability (e.g. performance agreements, incentive structures) meant that implementation depended heavily on individual champions and ad-hoc collaborations. The evaluation concludes that strengthening governance – through clearer mandates, better inter-ministerial coordination, and accountability mechanisms – is essential for the success of Malaysia's next nutrition plan.

Data and Learning

Monitoring and data systems under NPANM III were inadequate, constraining both evaluation and adaptive management. About a **quarter of the plan's outcome indicators had no data available at all**, and many others lacked up-to-date data, preventing a full assessment of progress. Routine monitoring

focused on inputs and activities but did not systematically track interim outcomes or disaggregate results by state or subgroup. The **Mid-Term Review in 2021**, while it led to some framework revisions, was not supported by a robust ongoing M&E system, limiting mid-course corrections. **Weak data collection and feedback loops** left policymakers without real-time evidence to guide decision-making. For example, sharp declines in dietary quality were captured only in periodic surveys and thus constituted "blind spots" during implementation, delaying the response. At the state level, nutrition officers lacked complete data on key indicators (such as private-sector breastfeeding rates), hindering targeted interventions. The evaluation also noted a missed opportunity for **learning and innovation**: successful local initiatives (for instance, community nutrition programs in high-performing states) were not systematically documented or shared for scale-up. In essence, NPANM III operated with **significant information gaps** – roughly **25% of key outcome indicators were not tracked** – and insufficient emphasis on continuous learning. This undermined the plan's ability to adapt to emerging challenges (e.g. the COVID-19 shock or regional disparities) during the implementation period. Strengthening the nutrition information system, with regular monitoring of outcomes and equity, is critical going forward so that progress can be measured and strategies adjusted in a timely manner.

4. Recommendations

Strategic Approach and Enabling Environment

- **Elevate nutrition as a national development priority** by integrating nutrition targets and accountability into overarching policies and legislation (e.g., finalise and enact the proposed Nutrition legislation, embed nutrition objectives in national development plans), and by strengthening high-level multi-sectoral committees to secure cross-government ownership of nutrition outcomes.
- **Institutionalise robust multi-sector coordination and accountability mechanisms** to translate policy into action. Establish clear governance structures with defined roles for all relevant ministries, set performance benchmarks, and convene joint review forums that trigger remedial action when targets are missed. Introduce formal accountability agreements or incentives to drive inter-agency commitment toward nutrition results.
- **Embed an equity-focused approach** in the strategy's design and monitoring. Explicitly prioritise vulnerable and underserved groups, and mandate the collection of disaggregated data (by state, income, ethnicity, disability, etc.) to track nutrition outcomes among these populations. This will help direct resources to those consistently left behind and ensure improvements are inclusive of all Malaysians.
- **Formalise whole-of-society partnerships for nutrition.** Move beyond ad-hoc collaborations by mandating and resourcing the engagement of non-health sectors and the private sector in nutrition initiatives. For example, integrate nutrition objectives into agriculture, education, and social protection programs, and forge public–private partnerships so that private healthcare providers, workplaces, and community organisations are systematically involved in delivering nutrition interventions. Institutionalising these roles leverages broader societal support rather than relying solely on individual champions.
- **Integrate underlying determinants** (WASH, food security, etc.) into nutrition programs. Ensure parallel improvements in water, sanitation and hygiene, disease prevention, and household food

security are built into the next plan to address root causes of malnutrition. This means explicitly incorporating WASH promotion, infection control, and social protection measures into nutrition actions, creating an enabling environment that addresses underlying factors beyond the health sector.

Implementation Priorities and System Strengthening

- **Prioritise a double-duty agenda to tackle undernutrition *and* obesity.** In line with the findings, the next strategy should intensify efforts to finish the unfinished undernutrition agenda (e.g. reducing stunting and micronutrient deficiencies) *while* arresting the rise in overweight and obesity. This calls for scaling up proven interventions for undernutrition and implementing aggressive prevention programs for diet-related NCDs. A balanced focus on both ends of the malnutrition spectrum is needed to reverse negative trends and ensure nutrition security for all.
- **Ensure full implementation of essential nutrition initiatives nationwide.** Build on NPANM III's foundations by expanding the coverage of interventions that showed success but remained incomplete. For example, roll out the National Stunting Reduction Strategy and parenting education programs in *all* states with adequate resources and guidance, to substantially reduce child malnutrition. Address implementation bottlenecks by securing the required funding and manpower so that no high-impact intervention (such as nutrition improvements in childcare centres or maternal nutrition support) remains stalled due to operational gaps.
- **Accelerate inclusive engagement of civil society, youth, and the private sector** in nutrition efforts. Institutionalise a whole-of-society approach by creating structured mechanisms to engage non-state actors. Establish a National Nutrition Stakeholder Council to coordinate the contributions of NGOs, academia, youth groups, and the private sector in policy design, implementation, and monitoring. Provide targeted funding and capacity-building to local organisations to expand outreach in underserved areas, mobilise communities, and support private sector compliance with nutrition standards, with safeguards against conflicts of interest. This approach will strengthen implementation capacity, promote innovation, and position nutrition as a shared societal responsibility.
- **Strengthen and scale up healthy diet and obesity-prevention programmes.** The next plan should revive and institutionalise multi-agency initiatives to improve diets and promote active living, many of which were only partially implemented under NPANM III. This includes fully implementing interventions such as affordable farmers' markets, nutritious school meal programs, "healthy cafeteria" guidelines in workplaces/schools, and tighter regulatory controls on unhealthy food marketing. Ensuring these measures are carried out at scale, with effective coordination between health, education, agriculture, and local governments, will help improve diet quality nationwide and curb the obesity epidemic.
- **Invest in workforce and service delivery capacity for nutrition.** Make a strategic push to increase and train the human resources needed to deliver nutrition services effectively. This entails filling critical vacancies in public health nutrition (nutritionists, dietitians, community nurses) and continuing to upskill all front-line providers in nutrition counselling and support. States that prioritised continuous staff training under NPANM III saw better service quality and reach – thus, the Government should allocate sufficient posts and funding to strengthen the nutrition workforce

(especially in underserved areas) and institutionalise ongoing capacity development so that every district can competently implement the strategy.

- **Extend nutrition programmes to effectively engage the private health sector.** With a large segment of Malaysian mothers and children seeking care in private clinics and hospitals, the new strategy must bring these providers into the fold to broaden reach. This could involve mandating private maternity facilities to adopt Baby-Friendly Hospital Initiative standards, providing incentives and training for private practitioners to deliver IYCF counselling, and integrating data from private healthcare into national nutrition monitoring systems. By institutionalizing public–private collaboration, Malaysia can ensure consistent nutrition support standards across all service providers and avoid leaving any population outside national program coverage.
- **Intensify community-based nutrition engagement and behaviour-change communication.** Build on successful community-based approaches by scaling up programmes like mother-to-mother support groups, local health promoters, and partnerships with NGOs and local leaders. Strengthen multi-channel campaigns through clinics, schools, media, and events to shift social norms around diet and feeding. Making nutrition support visible and consistent at the community level will boost behaviour change and service uptake, complementing facility-based efforts.
- **Adopt a tailored, flexible implementation approach across states.** Given the wide variation across states, the strategy should avoid a one-size-fits-all model. Implementation must be tailored to local contexts—providing additional support, phased roll-outs, or stricter mandates in high-burden or under-performing states. High-performing states should be empowered to pilot innovations and share best practices. This differentiated approach will promote more equitable progress and foster inter-state learning within a unified national framework.

Prerequisites for Results

- **Establish a robust monitoring, evaluation, and data system for nutrition.** Close the data gaps identified in NPANM III by developing a comprehensive M&E framework with routine, real-time tracking of key nutrition indicators at national and state levels. Expand platforms like MS-NPANM to support timely reporting, early detection of implementation gaps, and adaptive management. The system should mandate disaggregated data collection (e.g. by state, socio-economic status, urban/rural) to monitor equity. Every core intervention must have a defined results tracker and undergo continuous monitoring to ensure effective delivery nationwide.
- **Secure sustainable and sufficient financing for nutrition interventions.** To avoid the resource shortfalls that limited NPANM III's impact, the government must significantly increase and **ring-fence funding** for priority nutrition programs. This includes allocating dedicated budgets for key activities within health and other sectoral budgets – rather than relying on ad-hoc funds or subsuming nutrition into broader expenditures. Align multi-year financing with the strategy's targets to ensure that ambitious goals are matched by adequate resources on the ground. By protecting and tracking nutrition-specific expenditures, the next NPANM can maintain program continuity and scale even amid competing fiscal pressures.
- **Develop a clear results framework and Theory of Change (ToC)** to guide implementation. The next nutrition strategy should be underpinned by a well-defined results framework linking interventions to expected outcomes and impacts, providing a "line of sight" from inputs to results. Building on lessons from NPANM III, each major activity should have a stated outcome pathway

and assigned responsibility. A refined Theory of Change should illustrate how multi-sector actions converge to achieve nutrition goals, offering a shared blueprint for implementers and improving collective accountability. Making explicit **who** does **what**, and **how success will be measured**, will help all stakeholders work in concert toward common objectives.

- **Institute stronger accountability and incentive mechanisms** for performance. To drive improvements in outcomes, embed strong accountability mechanisms. Introduce performance agreements for states and ministries with annual nutrition targets, regular reviews, and consequences or corrective support for underperformance. High-level bodies should track key indicators, resolve bottlenecks, and incentivise results—such as through recognition or additional resources—to ensure implementation stays on course and momentum is sustained.
- **Build resilience into nutrition programming** to safeguard gains during crises. COVID-19 exposed the vulnerability of nutrition services to external shocks. The next strategy should include emergency preparedness measures—such as alternative delivery models, stockpiles, surge staffing, and social safety nets—to ensure continuity of essential maternal and child nutrition services during crises. Embedding nutrition SOPs in emergencies will help protect progress and ensure resilience in the face of future disruptions.

Headline Recommendation	Explanation of Recommended Action	Reason for Recommendation	Priority
Elevate nutrition as a national development priority.	Integrate nutrition objectives into national development plans and consider passing dedicated nutrition legislation. Position nutrition as a cross-cutting development issue.	Nutrition is not fully embedded in core national planning frameworks. Weak high-level ownership and enforcement mechanisms exist.	High
Institutionalise multi-sector coordination and accountability.	Establish formal governance mechanisms that mandate joint planning, shared responsibilities, and regular reporting across sectors (health, education, agriculture, etc.).	Interventions beyond the health sector were inconsistently implemented. Coordination structures lacked authority to drive action.	High
Embed an equity-focused approach.	Prioritise underserved populations in strategy design and monitoring. Collect disaggregated data and provide tailored state-level support.	Wide disparities in nutrition outcomes across states. Vulnerable groups were not systematically targeted or tracked.	High
Formalise whole-of-society partnerships.	Create structured engagement platforms for NGOs, academia, the private sector, and community groups. Enable co-delivery of services and advocacy.	Ad hoc engagement has limited reach and effectiveness. Non-health actors were underutilised.	Medium
Address the underlying determinants of nutrition.	Integrate WASH, food security, disease control, and social protection into the national nutrition strategy.	Malnutrition is driven by poor living conditions and infections. NPANM III lacked integrated approaches.	Medium
Adopt a double-duty nutrition agenda.	Simultaneously scale up interventions to reduce undernutrition and prevent overweight and obesity.	Undernutrition and overnutrition co-exist and are worsening. NPANM III lacked a cohesive dual-burden response.	High
Fully implement high-impact interventions.	Ensure a full national rollout of proven actions, such as the stunting strategy, maternal nutrition, and IYCF programs, with adequate funding and workforce.	Many actions were only partially delivered. Gaps in scale and quality hindered effectiveness.	High
Engage non-state actors through structured mechanisms.	Establish a national council or forum to coordinate civil society, youth, and private sector contributions.	Non-state actors contributed locally but lacked systemic inclusion. No structured platform existed.	Medium
Scale up healthy-diet and physical-activity initiatives.	Implement national-level programmes such as healthy school meals, food marketing regulations, and urban activity planning.	Poor diet and physical inactivity drove rising NCDs. Related interventions were not scaled.	High

Headline Recommendation	Explanation of Recommended Action	Reason for Recommendation	Priority
Strengthen the nutrition workforce and service delivery.	Increase recruitment and training of nutritionists, community health staff, and public health nurses, especially in underserved areas.	Staffing shortages weakened outreach and service quality. Overextended personnel were common.	High
Integrate private healthcare in nutrition programming.	Develop mandates, incentives, and tools to involve private providers in nutrition counselling, monitoring, and delivery standards.	A large share of urban populations use private services, which were not covered by NPANM III.	High
Expand community-based promotion and BCC.	Scale up peer support groups, community health promoters, and behaviour-change campaigns using diverse media.	States with stronger community engagement achieved better outcomes (e.g., Kelantan).	Medium
Tailor implementation to the state context.	Allow flexibility in approaches and resource allocation. Provide additional support to high-burden or under-performing states.	One-size-fits-all implementation led to variable success. States have different capacities and needs.	High
Strengthen M&E and real-time data systems.	Build a digital platform and framework to regularly monitor interventions and outcomes, disaggregated by state and population group.	25% of outcome indicators had no data. Existing M&E systems lacked real-time utility.	High
Secure sustainable financing.	Increase dedicated budget allocations for core interventions. Protect nutrition budgets and link spending to results.	Ad-hoc operational funding led to implementation delays and coverage gaps.	High
Develop a results framework and Theory of Change.	Map how interventions lead to impact, assign ownership, and define indicators. Use it to guide implementation and tracking.	NPANM III lacked a shared logic model, weakening accountability and coherence.	High
Institute accountability and performance incentives.	Set state and ministry-level performance targets. Monitor and enforce them, offering recognition or support based on progress.	Implementation bottlenecks went unaddressed. No systematic review or correction mechanisms existed.	Medium
Build resilience into nutrition systems.	Develop contingency plans and safeguards to maintain nutrition services and food access during emergencies.	COVID-19 disrupted services and exposed the lack of preparedness mechanisms.	Medium