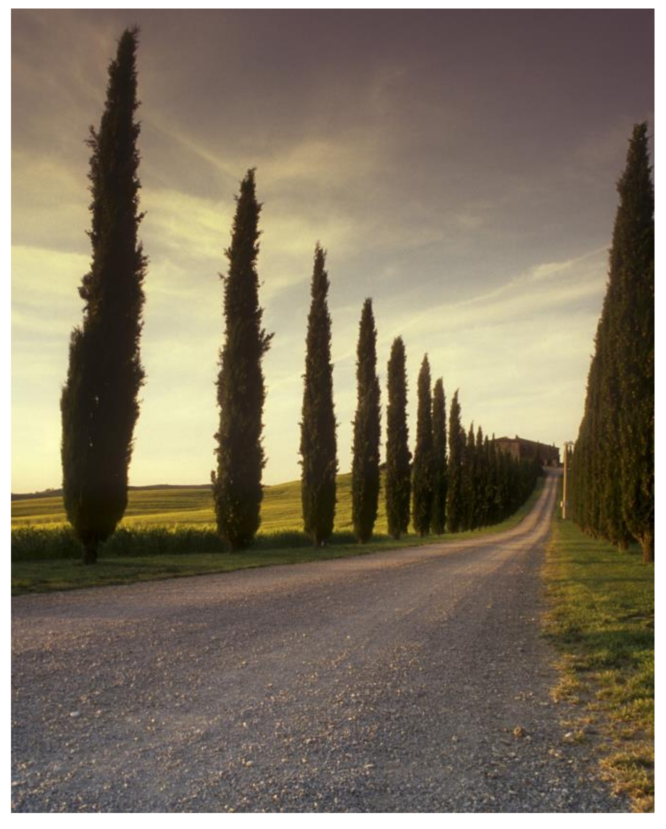
The project is funded by the Department of Health (DOH), Ministry of Public Health, Thailand, and UNICEF Thailand



"COUNTRY-LED FORMATIVE EVALUATION OF THE FIRST 1,000 DAYS PROGRAMME IN THAILAND" (2018-2023)

EVALUATION REPORT

JUNE, 2022

The project is funded by DOH, Ministry of Public Health, Thailand, and UNICEF Thailand

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ABBREVIATIONS AND ACRONYMS

ANC	Antenatal care
CHF	Community Health Fund
DAC	Development Assistance Committee
DHB	District Health Board
DOH	Department of Health, Ministry of Public Health
DLA	Department of Local Administration
DSPM	Developmental Surveillance and Promotion Manual
EBF	Exclusive Breastfeeding
ECD	Early Childhood Development
FGD	Focus Group Discussions
HDC	Health Data Center
HPH	Sub-district Health Promoting Hospital
IDI	In-Depth Interviews
KPI	Key Performance Indicator
LBW	Low Birth Weight
LGO	Local Government Organization
MCH	Mother and Child Health
MICS6	Multiple Indicator Cluster Survey 6 (MICS6)
NCD	Non-Communicable Disease
NDDC	Nutrition Development Dental Corner
NSO	National Statistical Office
NHSO	National Health Security Office
MOE	Ministry of Education
MOI	Ministry of Interior
MOPH	Ministry of Public Health
MSDHS	Ministry of Social Development and Human Security
PCC	Primary Care Cluster
PCU	Primary Care Unit
PP	Per Capita Payment
OECD	Organisation for Economic Co-operation and Development
SAO	Subdistrict Administrative Organization
SDGs	Sustainable Development Goals
SM	Subdistrict Municipality
TOC	Theory of Change
UC	Universal Health Coverage scheme
VHV	Village Health Volunteers
WCC	Well Child Clinic
WHA	World Health Assembly

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EXECUTIVE SUMMARY

Context and programme description

In general, Thailand has shown good progress in meeting the World Health Assembly (WHA) goals and has exceeded them in several areas. However, regarding other indicators, further efforts are needed to meet targets. According to the Multiple Indicator Cluster Survey (MICS) undertaken in 2015-2016 by the National Statistical Office (NSO), with support from the National Health Security Office (NHSO) and UNICEF Thailand Country Office, the low birth weight rate was 9.4 per cent, the rate of exclusive breastfeeding in infants aged 0-6 months was 23.1 per cent, the rate of moderate to severe stunting in children less than 5 years was 10.5 per cent, and 8.2 per cent of children under 5 years were overweight. In regard to nutrition, the survey found that only 49.6 per cent of children aged 6-23 months had an minimally acceptable diet, and 73.3 per cent of households used iodized salt. In regard to factors influencing learning, the MICS found low rates in some key areas, including the rate of involvement of fathers in the provision of learning support to infants and the availability of children's books.

This report describes the result of a country-led formative evaluation of the First 1,000 Days programme, a five-year programme implemented between 2018-2023 by the Department of Health (DOH) of the Royal Thai Government's Ministry of Public Health (MOPH), with the goal to promote maternal health and child growth such that all children in Thailand aged 0-2 years reach their full potential height and optimal weight, and achieve age-appropriate development. The evaluation was conducted by Mahidol University with leadership from the DOH and technical support provided by UNICEF Thailand Country Office. The evaluation report includes key findings on all aspects of the programme during 2018-2021 and makes recommendations related to maternity and perinatal care for women and newborns, and care for children up to 2 years of age, as well as the programme design and implementation.

The programme promotes a more holistic approach to maternal health and child growth and development, with increased cooperation among relevant agencies, addressing specific nutritional and health issues, and increasing community involvement. The programme consists of four approaches: i) Improving the quality of antenatal care (ANC) and well child clinics (WCC) according to the entitlement package; ii) Raising the level of services; iii) Increasing community/local and network participation; and iv) Increasing the coverage of all beneficiaries. Furthermore, the ultimate outcomes of the programme are changes in healthy height and weight[1] and the optimal development of children aged 0-2 years.

Evaluation purpose, objectives and audience

The purpose of this country-led process evaluation was to assess the effectiveness of the programme from 2018-2021, its coverage, and the extent to which outputs correspond to targets set, identify any important gaps in the programme, and make recommendations for adjustments to improve the programme. The key evaluation question was "To what extent has the programme contributed to the optimal growth and development of children in Thailand?". Additional objectives were to: 1) Assess to the extent to which the First 1,000 Days

[1] Healthy height and weight are measured as children who have both height/length ≥ 1.5 S.D. of height for age and weight between -1.5 S.D. to +1.5 S.D. of weight for height/length.

programme can contribute to optimal growth and development of children in Thailand; 2) Identify the main achievements of the First 1,000 Days programme to date, the key challenges experienced, and the key factors that have contributed to successful implementation; and 3) Provide recommendations on how future programming may be improved, including approaches that could improve programme design, implementation, coordination, and monitoring. The evaluation framework was based on the Organisation for Economic Cooperation and Development's (OECD) Development Assistance Committee's (DAC) evaluation criteria.[2] In addition to relevance, coherence, effectiveness, efficiency, sustainability, a further criterion of "inclusiveness" was added, which included the cross-cutting issues of equity, gender and human rights. The OECD "impact" criterion was not assessed.

Evaluation methodology

The evaluation applied a mixed methods approach, with a combination of quantitative and qualitative methods. For data collection, questionnaires were used to collect quantitative information on beneficiaries, and in-depth interviews were used to collect qualitative information on selected beneficiaries and duty bearers. Data collection was carried out during May-October 2021, using a multi-stage systematic random sampling method. The evaluation selected four provinces, one from each of the four regions in Thailand. A total of 240 carers of children aged 0-2 years, 80 postpartum mothers of children aged 0-11 months, 64 pregnant women, and 52 duty bearers participated in the study. After completion of structured interviews with beneficiaries using questionnaires, follow-up in-depth interviews (IDI) were conducted with 72 beneficiaries. In-depth interviews of 111 key stakeholders (duty bearers) were conducted at the national, provincial, district, and sub-district levels.

The COVID-19 situation in Thailand presented significant challenges to conducting the evaluation. As a result, two provinces originally selected were changed owing to the severity of the pandemic. Also, for data collection, the evaluation team had to conduct interviews online and by phone. Additional marginalized beneficiaries were interviewed on-site when the COVID-19 situation was improved, but visits were possible to only two provinces. Data on children's nutritional status and development were obtained from secondary records and the official records contained in the Pink Book kept by parents.[3]

Other limitations faced by the evaluation were sample size and budget. The total fertility rate (TFR) in Thailand has dropped, meaning that, while sub-districts with a high birth rate were selected, the sample in the study was still small, especially pregnant and postnatal women. The limited budget on this evaluation also prevented evaluation team in expanding the data collection to include a larger number of sub-districts.

The United Nations Evaluation Group's (UNEG) ethical considerations and the evaluation guidelines consistently supported and guided the evaluation team throughout the evaluation process. Additionally, this evaluation was approved by the Committee of Human Rights for Experiments Conducted with Human Subjects under the Department of Health, Ministry of Public Health, Thailand.

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[2] http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

[3] The Pink Book is issued to all mothers following childbirth and provides a record of the child's health and development, as well as information on immunizations and nutrition.

Key findings and conclusions Key findings are organised around the OECD/DAC criteria of relevance, coherence, effectiveness, efficiency, sustainability, equity and the additional criterion of inclusiveness:

Relevance

The evaluation found that programme is relevant and aligned to the maternal and child health (MCH) context in Thailand and beneficiaries found it highly relevant for child development. The objectives of the intervention are relevant to Thailand's 20-year National Strategy (2018-2037), especially strategy 3 (developing and strengthening human capital), and the MOPH's 20-Year National Strategic Plan for Public Health (2017-2036) in building and strengthening the capacity of women and children in early childhood.

Programme activities, especially key activities such as encouragement of antenatal care (ANC) visits before 12 weeks of gestation, and provision of knowledge, especially on nutrition, breast feeding and child development, are appropriate to the needs of the target population.

The programme is not based on a clearly articulated theory of change (TOC) outlining an intervention logic and a results chain for healthy height and weight and optimum development of children from pregnancy until the age of 2 years. It can be inferred, however, that the programme is based on the assumption that increasing both the quality of care provided by health services and community participation through providing knowledge, demonstrations, and practices for beneficiaries at each stage, will result in improvements in attaining the desired outcomes of healthy height and weight rates and optimum development for children.

Although parents and other caregivers are most directly responsible for the feeding and caring of children and are keen to ensure that they have accurate information to make appropriate feeding choices, they are nevertheless limited by their immediate environment. Therefore, another intervention that should be considered is increasing food accessibility for the target group, especially during crises such as the COVID-19 pandemic.

Lastly, to further improve the relevance of activities, strengthening coordination with local government is needed to enhance the ownership of the programme at the local and community level.

Coherence

The evaluation found no clear linkages with local government organizations (LGOs); this is reflected in the lack of yearly plans or activities related to MCH, even though LGOs have a clear mandate by law to provide support for MCH services. Therefore, it is essential that encouragement be given to LGOs to develop yearly plans that include ANC and WCC related activities, based on needs assessment, including monitoring and evaluation plans.

The programme scope and design are compatible with other interventions and consistent with the ongoing practices of public health officers in their basic services under the national programme, in particular promotion of exclusive breastfeeding, nutrition, oral health care, and child development. However, little evidence was found that the programme facilitated synergies with interventions and strategies led by other government ministries/agencies in Thailand. The work of MSDHS and the Ministry of Interior (MOI) on children is mostly implemented in daycare centres and schools, where most children are over two years old.

Under the Child Support Grant scheme, parents of newborns up to the age of 6 receive a government payment of 600 baht per month as part of measures introduced by the government to support newborn childcare. All mothers interviewed were satisfied with this support and said that it had helped them to provide more child care.

Effectiveness

The programme approach and model of implementation are appropriate regarding achievement of the expected objectives and results. Findings showed that the beneficiaries were highly satisfied with the activities of ANC and well child clinic (WCC) service providers. However, providing knowledge to grandparents is also essential as they often live in the family household and have influence. More encouragement should be given to home visits by village health volunteers (VHV) or sub-district health promoting hospital (HPH) officers, performed with guidelines and checklists, to monitor the knowledge and practice of beneficiaries, instead of simply providing advice.

There were few differences in work practices and outcomes within the First 1,000 Days programme implementation sites compared to the situation before the commencement of the programme. However, the percentage of pregnant women who visited ANC before 12 weeks of gestation was more than before the commencement of the programme, which was attributed to VHV who worked to find pregnant women in the community and encouraged them to visit ANC.

The First 1,000 Days programme did not appear to result in additional burdens on workload, administration, facilities or equipment. Support was needed for replacement of old equipment and media such as food and tooth models for beneficiaries and training.

Most ANC and WCC officers (83 per cent) agreed that the programme raised the level of services. However, it was found that only a few beneficiaries received food demonstrations, practical training in food preparation, and training for interpreting nutrition assessment results and trends of weight gain. Fifty per cent of clinic officers reported that hospital nutritionists provided knowledge to beneficiaries at clinics. However, counselling provided by nutritionists to beneficiaries who had nutrition problems only occurred in two hospitals. Barriers to providing those activities at clinics included the limited time of each visit and not enough nutrition professionals. This highlights that more nutrition-related capacity building of ANC and WCC officers and VHV is required. Most staff and beneficiaries understood the Development Promotion and Surveillance Manual (DSPM) quite well, as it is detailed and easy to read and practice. However, both staff and beneficiaries said that they needed more training on child development and on the First 1,000 Days programme as a whole.

The programme's handbook indicates that Primary Care Unit (PCU), district hospitals and HPH should take the lead at the sub-district level by organizing child and family development teams at sub-district levels and villages, comprising representatives from the public and private sector, community leaders, religious leaders, local scholars, VHV, and local people living in the area. This collaborative team can then work as a civil society organization that plans and works together for the healthy height and weight and development of children aged 0-2 years. Data from interviews with HPH officers reported that there were child and family development teams in all sub-districts, with the mayor or Chief Executive of the Subdistrict Administrative Organization (SAO) acting as chairperson. HPH officers were mainly responsible for the activities, together with VHV. Before the COVID-19

pandemic began in 2020, they implemented projects/activities for beneficiaries, but during the COVID-19 pandemic, they were not able to implement any activities in the community. Although they implemented, monitored and evaluated project/activities and improved the project/activities as indicated by the programme's handbook, they were not able to conduct a situation analysis at the individual level.

The lack of encouragement of programme ownership by local government was the main challenge to achieving the programme's objectives. Efforts by executives to involve non-health personnel, especially at the policy level by province, district, and sub-district, had some success, enabling MOI staff to understand the importance of the programme, and show eagerness to provide support.

The COVID-19 pandemic was another challenge to the achievement of the programme. The pandemic increased the workload of officers, resulting in less time for their regular duties, as well as implementation of additional programme activities. The economic impact of the pandemic increased the financial hardships faced by beneficiaries, and limited their visits to clinics, as well as home visits by health personnel. Health officers solved the problem, in part, by providing online advice and monitoring through social media, such as the Line application.

Inclusiveness

While there were limitations on sample size, it appears that the programme has been successful in reaching the most vulnerable and marginalized people in the community (including elderly carers, women with disability, migrants and mobile populations, ethnic minority groups, and stateless people). The work of VHV was a key success factor in improving inclusiveness. VHV could help identify vulnerable and marginalized groups in the community, and take close care of those people. Despite these efforts, language barriers can cause difficulties in the provision of knowledge and practices.

Efficiency

The management structures were found to be efficient. However, the management structures were similar to those in place before the programme launched. The structures outlined certain activities that were directed in order to achieve the goals of an organization. These activities included rules, roles and responsibilities. The executive responsibilities include making major corporate decisions, managing the overall operations and resources, and acting as the main point of communication between the higher executives and corporate operations. Public health officers reported that they were satisfied with their work and the executives.

The two aspects of the programme that could have been achieved more effectively by more cost or time-effective means are: (1) encouraging community participation and ownership; and (2) developing guidelines and checklists for VHV home visits.

Sustainability

The sustainability of initiatives should be central to the design of the DOH programme. The DOH has the potential to guide coordinated efforts, which can have longer lasting results if guided by an overall strategy. This can have

a ripple effect among partners as well. Although the programme integrates technical assistance as an important approach to achieving results, more focus is needed on learning by doing and generating local ownership. There is a consensus that capacity building is a key area for sustainability and is an important area for the future, and should be viewed as a core aspect of future programming systems building to ensure succession planning.

Recommendations

Relevance

1. Government to improve programme design, an evidence-based Social and Behaviour Change communication strategy is needed to guide the design of interventions, establish intended audiences, set behavioural communication objectives, and determine consistent messages, materials, and activities across channels to communicate with and reach caregivers, their extended family, and the wider community.

Coherence

2. Coordination with local government needs to be strengthened by the MOPH's executive at all levels to enhance ownership of the programme at the local and community level and ensure that the programme is relevant to the needs of the beneficiaries.

3. The MOPH's executive at all levels should put more effort into coordinating with other ministries, including the MOI, MOE, MSDHS, Ministry of Labour, and the Ministry of Agriculture and Cooperatives. Furthermore, ministries should coordinate to develop an assessement plan and monitoring indicators to ensure that beneficiaries' needs are met.

Effectiveness

4. For optimal learning outcomes, the time allocated for advice should be about 15-30 minutes; if longer than this, people find it difficult to understand and remember what has been said. Therefore, the programme should prioritize the allocation of time for activities in clinics and encourage the use of other modalities, such as the greater use of home visits, to provide advice and monitor the progress of gestation.
5. The DOH should take the main role in developing an application software for home visit programme of health care providers and VHV to: 1) provide knowledge, encourage and support to beneficiaries; 2) monitor the behaviour of beneficiaries and caregivers (including grandparents in the household) in relation to nutrition, play, storytelling, and oral care. This application should be transferred to HPH and other MOPH levels to monitor and supervise.

6. DOH should take the main responsibility for developing guidelines/manuals/handbooks for the Regional Health Center and Provincial Health Office to train ANC/WCC staff, especially nutrition and child development.

7. There are many applications providing knowledge to beneficiaries developed by private or DOH. This evaluation found that they were hardly accessed. Therefore, DOH should perform the study of effective

media for beneficiaries. Due to the different education and economic levels of beneficiaries, both electronic media and paper-based media should be explored. More online advice and monitoring through social media, such as the Line application, was needed during the COVID-19 pandemic; this experience presents opportunities for DOH to develop standard applications for duty bearers.

8. Few nutrition professionals participated in the programme because they worked only in hospitals and regional health promotion centers. The office of the Permanent Secretary, MOPH should encourage the hospital to have Nutrition professionals fill the position. DOH should provide guidelines for capacity building of HPH, VHV, or other volunteers to have nutrition ability, including assesement, counseling, training, monitoring, and evaluation.

9. To line ministries: The executive should coordinate with other ministries, officers or networks to reduce the economic impact of the COVID-19 pandemic on beneficiaries, which will increase the programme's success.

Inclusiveness

10. The DOH executive at the regional and provincial levels should support facilities to increase their provision of learning opportunities and improve practices relating to the inclusion of marginalized populations, such as providing a hard copy of the Pink Book and DSPM in other languages.

Sustainability

11. The DOH and Department of Local Administrative Promotion (DLA), MOI, should make greater use of the opportunities presented by the willingness of local governments to participate in the programme, creating ownership by local government through training planning support, starting from need assessments, work plans, and evaluation. Training and programme planning should initially be conducted by the Provincial Administrative Organization (PAO) until programme outcomes are reflected in the yearly plan.

12. There needs to be an increased focus from MOPH on capacity building for nutrition and child development, which are key areas for sustainability which form an important base upon which to build future programming systems to ensure succession planning.

LESSONS LEARNED

The evaluation identified the following lessons learned from the programme intervention:

1. The programme created change through building partnerships. This highlights the importance and value of partnership and coordination among agencies and partners, encourages partnership to become a reality, and increases the likelihood of more joint activities. Leadership is essential for building partnerships which lead to change.
2. Activities implemented at the local levels within a country need to be integrated into national plans and local stakeholders should have the opportunity to participate, be empowered, and gain access to relevant lessons learned.
3. VHVs are essential for the programme's success as they work closely with the beneficiaries. However, knowledge or training provision alone cannot make the programme successful. Additional

support for VHVs is required, such as developing guides for monitoring and capacity building, in order to focus VHV home visits and increase the benefit for target groups.

4. To move forward with a national-level undertaking, all the levels need to be working together to achieve all the outcomes successfully.

1. INTRODUCTION

1.1 OVERVIEW

To promote accountability and learning as well as evidence-based decision-making, the Department of Health (DOH) of the Royal Thai Government's Ministry of Public Health (MOPH), with support from UNICEF Thailand Country Office, commissioned a country-led formative evaluation of the "First 1,000 Days" programme (referred to henceforth as the First 1,000 Days programme), a five-year programme implemented between 2018-2023. The programme aims to promote health promotion and disease prevention to achieve the desired outcome: "Children aged 0-2 years have full potential height, optimal weight, and age-appropriate development".

This evaluation applied a combination of quantitative and qualitative methods that strengthened the validity of findings through triangulation of data. Questionnaires were used to collect quantitative information on beneficiaries, and in-depth interviews collected qualitative information on duty bearers and selected beneficiaries. Data collection was performed from May-October 2021 in four provinces from four regions in Thailand. A total of 240 carers of children aged 0–2 years, 80 postpartum mothers of children aged 0-11 months, 64 pregnant women, and 111 duty bearers participated in the study.

The MOPH supported operating costs for the quantitative component of the evaluation. The qualitative component and main part of the project was supported using funds provided by UNICEF Thailand. The findings from the evaluation provide an assessment of implementation progress to date, assess the relevance, coherence, effectiveness, efficiency, sustainability, inclusiveness, and impact of the programme, enable any important issues or gaps to be identified, and contribute data to inform the next five-year planning cycle of the MOPH.

1.2 BACKGROUND AND OBJECT OF THE EVALUATION

1.2.1 Country context

Child growth and development is recognized as being a major global health issue with an impact on global development, as reflected in the UN's Sustainable Development Goals (SDGs). Accordingly, access to adequate nutrition, reduction of stunting, wasting and overweight and obesity are reflected in SDG Goal 2, while reduction of maternal and neonatal mortality is a goal of SDG 3, and Early Childhood Development (ECD) is included in target 4.2 of SDG Goal 4: "By 2030, ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education." Additionally, the World Health Assembly (WHA) set the following Global Nutrition Targets to be achieved by 2030[4]:

- Stunting - 40% reduction in the number of children under 5 who are stunted
- Overweight - No increase in childhood overweight

[4] International Food Policy Research Institute. 2016. Global Nutrition Report 2016: From Promise to Impact: Ending Malnutrition by 2030. Washington, DC.

- Anaemia - 50% reduction in anaemia in women of reproductive age
- Breastfeeding - Increase in the rate of exclusive breastfeeding during the first 6 months up to at least 50%
- Low birth weight - 30% reduction in low birth weight
- Wasting - Reduce and maintain childhood wasting to less than 5% by 2030

Under the Royal Thai Government's 20-year National Strategic Plan (2018-2037) and the Strategic Plan of the Ministry of Public Health's Department of Health, the following goals were established to be reached by 2022:

- 64% of children aged 0-5 years have full potential height and optimal weight
- Average height of children at 2 years will be 92 cm for boys and 91 cm for girls
- Average height of children at 5 years will be 113 cm for boys and 112 cm for girls
- 85 % of children aged 0-5 years have age-appropriate development

In general, Thailand has shown good progress in meeting the WHA goals and has exceeded them in several areas. However, regarding other indicators, further efforts are needed to meet targets. According to the Multiple Indicator Cluster Survey (MICS) undertaken in 2015-2016 by the National Statistical Office (NSO), with support from the National Health Security Office (NHSO) and UNICEF Thailand Country Office, the rate of low birth weight was 9.4 per cent, the rate of exclusive breastfeeding in infants aged 0-6 months was 23.1 per cent, the rate of moderate to severe stunting in children less than 5 years was 10.5 per cent, and 8.2 per cent of children under 5 years were overweight. In regard to nutrition, the survey found that only 49.6 per cent of children aged 6-23 months had a minimally acceptable diet, and 73.3 per cent of households used iodized salt. In regard to factors influencing learning, the MICS survey found low rates in some key areas, such as the rate of involvement of fathers in the provision of learning support to infants and the availability of children's books.

1.2.2 THE FIRST 1,000 DAYS PROGRAMME

The First 1,000 Days programme began in 2018, in order to address those issues and respond more effectively to the goals of the National Strategic Plan and World Health Assembly, the programme aims to contribute to the following specific health and social goals:

1) Good child growth and optimal development
2) Increase intelligence levels
3) Reduce the problem of sickness due to communicable diseases
4) Reduce infant mortality due to mal/undernutrition
5) Reduce chronic non-communicable disease (NCD) in adulthood

In its approach to achieving the above goals, the First 1,000 Days programme differs in some important ways from the previous ANC and early childhood development (ECD) programme.[5] In general, the approach has involved the promotion of a more holistic approach to maternal health and child growth and development, with increased cooperation among relevant agencies, addressing specific nutritional and health issues, and increasing community involvement. In 2018, the programme began by covering three main areas of service provision: i) improvement of the quality of ANC/WCC according to the entitlement package; ii) raising the level of services; and iii) raising the level of community/local and network participation for three target groups (pregnant women; infants aged 0-6 months; and infants aged 6 months-2 years). Between 2019 to 2021, the programme aimed to enhance local, community-level ownership of the programme's activities and expand the coverage of the programme from 1 to 3 sub-districts in every province with the aim of providing full coverage, high-quality services. The current programme includes the following:

1) A gap analysis of diet/food consumption; dispensing of iron-folic iodine tablets/iron supplements; oral health care; promotion of physical activity/play, sleep and development;
2) Development of the system and mechanism of health districts, provinces, and districts, to close the gap;
3) Promotion of participation of network partners, especially the community;
4) Support for the provision of milk and eggs to pregnant women, lactating women, and children;
5) Food demonstrations for pregnant women, lactating women, and children aged 6 months-2 years;
6) Practical training in food preparation for pregnant women, lactating women, and children aged 6 months-2 years, including hands-on training for brushing teeth;
7) Practical training for pregnant women to interpret nutrition assessment results and trends of weight gain;
8) Practical training for parents/carers in interpretation of nutritional status assessment and trends in height and weight gain in children;
9) Use of the Development Promotion and Surveillance Manual (DPSM) for monitoring child development by parents/carers;
10) Increased involvement of hospital nutritionists in provision of nutritional services, such as assessment of food consumption behaviour and nutritional advice.

In terms of geographical coverage, the programme target was for implementation in at least one *tambon* (sub-district) in at least 90 per cent of districts of every province by 2019, and at least three sub-districts for every district by 2020. Full details of the rationale, activities and implementation strategy of the First 1,000 Days programme are presented in the manual "*Naew thang kan khap khluean mahasachan 1,000 wan raek khong chiwit*" published by the DOH.[6]

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[5] World Health Organization, United Nations Children's Fund, World Bank Group. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. Geneva: World Health Organization; 2018.

[6] "*Naew thang kan khap khluean mahasachan 1,000 wan raek khong chiwit*", Department of Health, Ministry of Public Health 2018 (in Thai).

1.2.3 CONCEPTUAL FRAMEWORK

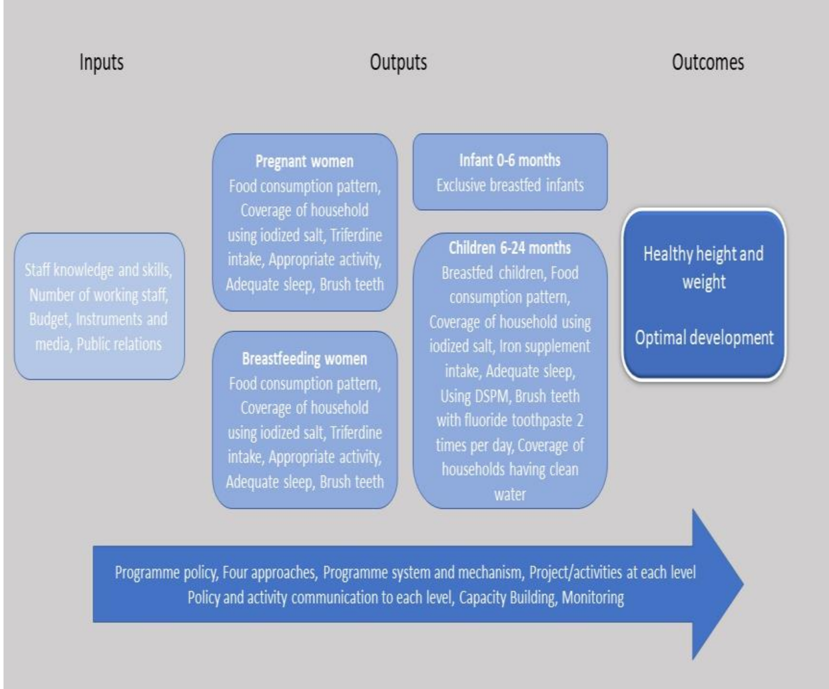
The conceptual framework of the First 1,000 Days programme developed by the DOH for the programme intervention is outlined in Figure 1, and the programme system and mechanism are described in Figure 2.

Figure 1 was developed by the evaluation team as the programme did not have a theory of change. The key assumptions underlying the theory of change for this programme are as follows: 1) programme initiate and work from policy level; 2) follow system and mechanism (Figure 2); 3) communication to each level; 4) capacity building; and 5) monitoring.

Those assumptions would make a change in 1) knowledge and practice of the beneficiaries; and 2) healthy height and weight[7] and optimal development of 0-2 years children.

The programme promotes a holistic approach to maternal health and child growth and development, with increased cooperation among relevant agencies, addressing specific nutritional and health issues, and increasing community involvement. The programme consists of 4 approaches: i) improvement of the quality of ANC/WCC according to the entitlement package; ii) raising the level of services; iii) raising the level of community/local and network participation; and iv) coverage of all beneficiaries.

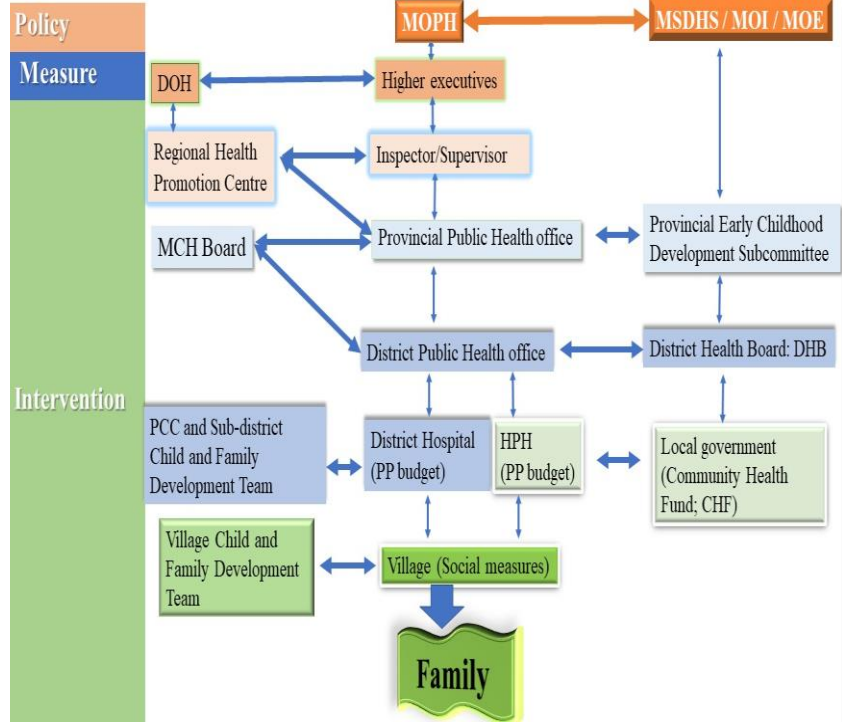
Figure 1 Programme conceptual framework



The programme mechanism was initiated from MOPH, DOH, as a policy (Figure 2). MOPH coordinated with three other ministries (MSHDS, MOI, and MOE) and DOH is the main responsible entity for the programme. The programme is monitored by MOPH higher executives, inspector/supervisor, and is implemented by Provincial/District Public Health officers and hospital staff including HPH which are under the Office of Permanent Secretary (OPS), MOPH. The implementation mechanism at the regional level responses are under the MCH board, which coordinates the Provincial and District Public Health Offices.

[7] Healthy height and weight is classed as children who have both height/length ≥ 1.5 S.D. of height for age and weight between -1.5 S.D. to +1.5 S.D. of weight for height/length.

Figure 2 Programme system and mechanism



There are three tiers of the MCH board at national, regional, and provincial level. The chairperson of the MCH board at the regional level supervises the MOPH, while the committee is comprised of MOPH staff from regional, centre and provincial level. Similary, the MCH board at the provincial level is led by the director of Provincial Public Health Office, and the committee comprises MOPH staff from the Public Health Office and all hospitals in the province. The officers of the three ministries and MOPH officers form the Provincial Early Childhood Development subcommittee and District Health Board (DHB), with District Chief as chairperson and District Health Officer as DHB secretary. The committee is formed of members from government, private organizations, and community members.

The budget at the sub-district level is derived from two sources, i.e., budget for health promotion and prevention (PP budget) under the Universal Health Coverage (UC) scheme, and the Community Health Fund (CHF). The CHF was set up by the National Health Security Office (NHSO), Ministry of Public Health, and Department of Local Administration, Ministry of Interior at the subdistrict level, emphasizing participatory process. CHF primarily aims to support health-related activities conducted by communities and organizations based on community demand and readiness. The CHF can be used for health promotion, prevention, rehabilitation, and proactive primary healthcare. Funding sources are from NHSO and 10-20 per cent from local government, depending on the size of the local organization. The chairperson of CHF is the chief executive of the SAO/SM.

1.3 PURPOSE, OBJECTIVES, AND SCOPE OF WORK

1.3.1 PURPOSE

The First 1,000 Days programme has now been implemented for three years, and it is time to conduct a review of progress made and the results achieved to date. The purpose of the evaluation is to assess the effectiveness of the First 1,000 Days programme, its coverage, the extent to which outputs correspond to targets that were set, identify any important gaps in the programme, and make recommendations for adjustments that will improve the programme. The evaluation will provide valuable information for a wide variety of stakeholders,

including the Royal Thai Government and international agencies, such as UNICEF Thailand Country Office, but will be of particular benefit to DOH Senior Administrators, the Women and Early Childhood Cluster of the MOPH, and other concerned agencies such as the Ministry of Social Development and Human Security (MSDHS), local government administration and the Ministry of Interior (MOI).

1.3.2 OBJECTIVES

The specific objectives of the evaluation are:

1) To assess to the extent to which the First 1,000 Days programme can contribute to optimal growth and development of children in Thailand;
2) To identify the main achievements of the First 1,000 Days programme to date, the key challenges experienced, and the key factors that have contributed to successful implementation;
3) To provide recommendations on how future programming may be improved, including approaches that could improve programme design, implementation, coordination, and monitoring.

1.3.3 Scope of work

This evaluation was conducted in June-December 2021 by the evaluation team from Mahidol University, Thailand. Four provinces from four regions – North, North-Eastern, central, and South of Thailand – were selected through randomization. The four provinces that participated in the study were Sukhothai, Nongkai, Chantaburi, and Krabi. Two sub-districts in two districts of each province were included. In total, eight sub-districts in eight districts of four provinces were studied.

2. EVALUATION METHODOLOGY

The evaluation methodology was based on a mixed methods approach, combining the use of quantitative and qualitative data collection methods together with information derived from a desk review of relevant documents. The evaluation included the views of all key stakeholders, including both rights holders (parents/carers, in particular, pregnant women and mothers) and duty bearers (for example, health staff, officials, and community network representatives). Data obtained from the various sources, through the different methods, was triangulated to obtain information to answer the evaluation questions. The budget for the evaluation was supported by DOH, MOPH, and UNICEF Thailand.

2.1 EVALUATION FRAMEWORK AND QUESTIONS

The evaluation commenced with a kick-off meeting between the evaluation team and the Evaluation Steering Committee, comprising DOH and UNICEF Thailand representatives. In this meeting, DOH and UNICEF staff provided a briefing on the First 1,000 Days programme and the Terms of Reference (ToR), and addressed questions raised by the evaluation team. Subsequently, during the inception phase for the evaluation, the team developed a detailed Evaluation Matrix, including sub-questions for each evaluation question,

measures/indicators of progress, and details of proposed data collection methods and sources of information on each question. Following review and discussion between the evaluation team and the Steering Committee, the Evaluation Matrix was finalized (see **Annex I**), and the evaluation team then proceeded to develop a sampling plan, instruments for data collection, and a detailed work plan for the assignment. These components were reviewed by the Steering Committee and included in an Inception Report submitted to the DOH in August 2021. Following approval of the Inception Report, data collection commenced in September 2021.

The MOPH supported operating costs during May-September 2021 for the quantitative component of the evaluation and qualitative component of some stakeholders, i.e., health care providers of ANC and WCC, MOI officers, and VHV. The main qualitative component of both stakeholders and beneficiaries was supported using funds provided by UNICEF Thailand during June-October 2021.

Early Childhood Development and Health are central to implementing the Convention on the Rights of the Child (CRC) in Thailand. Thailand was one of the first countries to ratify CRC. The RTG supported key policy decisions that improved underprivileged children's access to essential care, services, and nutrition, enabling growth in long-term productivity through better accumulation of human capital. [8] This evaluation is framed under the CRC and the human rights based approach.

The key question to be answered by the evaluation is "To what extent has the programme contributed to optimal growth and development of children in Thailand?". In answering this question, specific aspects of programme implementation and results are assessed using the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee's (DAC) evaluation criteria, comprising relevance, coherence, effectiveness, efficiency, and sustainability.[9] A further criterion of inclusiveness was added, including the cross-cutting issues of equity, gender, and human rights. The specific evaluation questions according to the criteria are as follows:

1) **Relevance:** "The extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change."
    - To what extent did the First 1,000 Days programme respond to and meet the identified needs of the target groups?
2) **Coherence:** "The compatibility of the intervention with other interventions in a country, sector or institution."
    - To what extent has the programme been compatible with other interventions, including policies, in Thailand that are related to the area of ANC/WCC and Early Childhood Development (ECD)?
3) **Effectiveness:** "The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups."
    - How effective was the programme design?

[8] Source: TDRI & and EPRI, CSG Impact Assessment

[9] http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

  - To what extent were programme results based on a theory of change (TOC) clearly outlining intervention logic and a results chain?
  - How appropriate was the programme approach and model of implementation in regard to achieving expected objectives and results?
- To what extent has the programme achieved its stated objectives? Specifically:
  - To what extent has the programme achieved its objectives in terms of planned geographical coverage and scope of activities?
  - To what extent has the programme improved the quality of ANC/WCC according to the entitlement package in regard to pregnant women (270 days), infants 0-6 months (180 days), and infants aged 6 months – 2 years (550 days)?
  - What significant differences exist in work practices and outcomes within the First 1,000 Days programme implementation sites in comparison with the situation before commencement of the programme?
  - What significant differences in work practices and outcomes are there between the First 1,000 Days programme implementation sites and those sites where the programme has not yet been implemented?
  - To what extent has the programme raised the level of services?
  - To what extent has the programme raised the level of community/local and network participation?
- How and to what extent were the innovative aspects of the First 1,000 Days accommodated by the existing programme?
  - To what extent did pregnant women, parents, carers, staff understand the DSPM Manual for monitoring child development, nutritional status assessment, child development standards, and the First 1,000 Days programme as a whole?
  - To what extent did the First 1,000 Days programme result in additional burdens on workload, administration, facilities & equipment, and how were these accommodated?
  - To what extent did staff have the capacity to implement the programme, including reporting?
  - To what extent was there cooperation between different agencies?
- What challenges to achievement of the programme's objectives have been encountered in the course of implementation and how have they been addressed?
- What have been the main achievements of the programme to date, and what are the key factors that have contributed to successful implementation?

4) **Inclusiveness:** "The degree to which major population groups facing life-threatening suffering, wherever they are, have been provided with impartial assistance and protection, proportionate to need. Requires analysis of differential coverage/ targeting, inclusion and exclusion impacts on population sub-groups (gender, ethnicity, location, family circumstance)."
   - How successfully has the programme included equity and gender equality, and reached the most vulnerable and marginalized people in the community (including elderly carers, women with disability, migrants and mobile populations, ethnic minority groups and stateless people)?

5) **Efficiency:** "The extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way."
    - To what extent was the programme implemented in the most cost-effective way possible, as compared to feasible alternatives?
        - How efficient were the management structures?
        - Was the programme budget appropriate in terms of intended outcomes?
        - Can programme outcomes be demonstrated through monitoring data and reporting?
    - Are there any aspects of the programme that could have been achieved more effectively by other more cost or time-effective means?
6) **Sustainability:** "The extent to which the net benefits of the intervention continue, or are likely to continue."
    - What is the likelihood of the benefits being sustained after completion of the programme?
        - How likely is it that relationships and cooperation between stakeholders will be maintained after completion of the programme?
        - Is there local ownership of the programme and will staff be motivated to maintain services at the same level after completion of the programme
    - What sort of continued support is necessary in order to ensure that services are maintained at the same level after completion of the programme?
        - Will provision need to made for on-going training or capacity building of staff?
        - What other resources would be required in order to maintain services?
        - Should any changes be made in management or at the policy level to ensure services continue to meet the required standards of care?

Based on these specific evaluation questions, workshops were conducted at the inception stage (after the preliminary analysis of the findings and draft report) with UNICEF Thailand and implementing bodies at national level, which helped validate and triangulate findings, obtain a wide range of perspectives and yield insights into the dynamics of the programme. Another workshop to present the final evaluation report is planned. At the inception stage an evaluation matrix was developed, including sub-questions, measures/indicators of progress, data collection methods and main sources of data/information (see Annex I).

2.2 DOCUMENT REVIEW

At the commencement of the inception phase the DOH provided the evaluation team with a set of relevant programme documents, including the programme design document "Guidelines for Development of the First 1,000 Days of Life" (in Thai *Naew thang kan khap khluean mahasachan 1,000 wan raek khong chiwit*), Powerpoint presentations, monitoring reports, and a range of other documents. Documents were reviewed for details of programme management, such as policy, the working committees at each level, and the related projects in the sub-districts. The review of these documents informed the development of the Evaluation Framework, sampling plan, and the questionnaire and interview guidelines to be used in data collection.

2.3 QUANTITATIVE DATA

Quantitative data was needed to answer the evaluation questions related to outcomes for beneficiaries, including variables such as women's health, diet, weight gain and behaviour during pregnancy, and child health, dietary intake, and development from birth until 2 years of age. This data was obtained mainly from survey data obtained through a questionnaire completed by beneficiaries, as well as official ANC and WCC records, and the Pink Book kept by parents, which is issued to all mothers following childbirth and provides a record of the child's health and development, as well as information on immunizations and nutrition.

Questionnaires were used to collect data from beneficiaries, i.e., pregnant women, postnatal women 0-11 months, and parents/carers of children aged 0-24 months. Inclusion criteria were beneficiaries who were 1) willing to participate; and 2) lived in that sub-district for at least six months before participation. The questionnaire for beneficiaries was drafted in consultation with the DOH and UNICEF. Following completion of the draft version, a pilot test was undertaken with informants in a province which was not included in the evaluation sample but possessed similar characteristics. The questionnaire was then revised according to the results of the pilot test.

Due to the COVID-19 pandemic, the data collection team could not perform on-site interviews. Therefore, after the official document was sent from the Director of DOH, MOPH, to the Director of Provincial Public Health Office, then they provided the name and contact of the Director of Sub-district Health Promoting Hospital to our team. The Director of HPH gave the name and contact of the beneficiaries and VHV in that sub-district. For interviewing, using Line application and Google Forms, all beneficiaries were invited and participated in the Line group of each sub-district. Beneficiaries who could not access the Line application were interviewed by phone. A total of 64 pregnant women and 84 postnatal women of children aged 0-11 months participated in the study.

The questionnaires were developed in consultation with the DOH and tested for validity by three experts, i.e., experts of nutrition, health behaviour, and child development. After revisions were made based on the experts' recommendations, the questionnaires were tested face-to-face with people who were similar to the participants in the study. The revised questionnaires were then used in the evaluation for data collection by the data collection team.

Sample size calculation: For quantitative data collection, the sample size calculation was performed thus:

The sample sizes of beneficiaries participating in the quantitative data collection was calculated using a proportion of children aged 0-2 years old who had healthy height and weight according to the Department of Health's 2015 growth standards. The sample size was calculated using the following formula:

$$n = \frac{z^2_{\propto/2} P(1-P)}{d^2}\ Deff$$

Where:

$1-\alpha$ = Confidence level 95% $z_{\alpha/2}$ = 1.96
P = proportion of children aged 0-2 years old who had healthy height and weight = 65.06 % (Source: Health Data Center: HDC) third trimester, B.C 2020)

d = The acceptable error in estimating the proportion of the child who had properly growth, maximum allowable error was 15% of P = 0.092

Deff =Design effect for two-stage cluster sampling = 2

n = 215.036 ≈ 215

Based on this calculation, 30 parents/carers of children aged 0-24 months in each sub-district, or a total of 240 participants, were randomly selected to complete questionnaires.

The data collection team comprised eight graduate students in public health, while one team member was a master degree student in the faculty of public health. A half-day training session was conducted by the senior members of the evaluation team with interviewers prior to the commencement of data collection.

2.4 QUALITATIVE DATA

Qualitative methods were used to gather additional information which is non-quantifiable or difficult to quantify, validate quantitative data through triangulation, and explore in further depth any issues or inconsistencies encountered in the quantitative findings. Qualitative data was obtained from two main groups of informants. The first comprised stakeholders (duty bearers) and the second beneficiaries (rights holders).

Types of stakeholders are shown in **Table 1.** They consisted of officers at different levels from the Ministry of Public Health (MOPH), Ministry of Social Development and Human Security (MSDHS), and Ministry of Interior (MOI) who were involved with planning and implementation of the First 1,000 Days programme. The MSDHS officers were from the provincial level because there were no representatives at the district and sub-district level. MOI participants were officers carrying out health-related work in local government agencies (Sub-district Administration Organization (SAO)/Sub-district Municipality). As the First 1,000 Days programme is under the MOPH, most duty bearers were working in the MOPH. Duty bearers of MOPH were divided into four groups: executives, technical officers at decentralized level, service providers at ANC/WCC, and village health volunteers (VHV). MOPH informants included responsible staff from Health Regions, Regional Health Promotion Centers, Provincial Health Offices, District Health Offices, and District Hospitals and Sub-district Health Promotion Hospitals. The evaluation team had planned to interview the Director of the Provincial Public Health Office and the Director of Provincial Hospital. However, they had a significant workload burden due to the COVID-19 situation and therefore could not participate in the study.

Beneficiaries of the programme (rights bearers) comprised pregnant women, parents, carers and children aged 0-24 months. Beneficiary informants were purposively selected from pregnant women, parents and carers who had already completed questionnaires. IDIs with beneficiaries were conducted as a second phase, following preliminary data analysis of data from questionnaires.

Table 1 Type and number of participants and data tools[10]

Type of target group	Target group	Number	Data tools

[10] For the sampling strategy please see annex IV.

Executives	**Ministry of Public Health** • Inspector of the Ministry of Public Health	3	IDI
	• Supervisor of the Ministry of Public Health	1	IDI
	• Director of Regional Health Promotion Center	2	IDI
	• Director of District Public Health Office	4	IDI
	• Director of District Hospital	1	IDI
	• Director of Sub-district Health Promoting Hospital	8	IDI
Technical officers at the decentralized level	**Ministry of Public Health** • Public Health Technical Officer, Regional Health Promotion Center	4	IDI
	• Public Health Technical Officer, Provincial Public Health Officers	4	IDI
	• Public Health Technical Officer, District Public Health	8	IDI
	Ministry of Interior • Officer of Public Health and Environment Subdivision, Sub-district Administration Organization (SAO)/Sub-district Municipality	8	IDI
	Ministry of Social Development and Human Security • Technical Officer, Provincial Social Development and Human Security Office	4	IDI
Service providers at ANC/WCC	**Ministry of Public Health** • ANC Health Officers in provincial hospitals	4	IDI
	• ANC Health Officers in district hospitals	8	IDI
	• WCC Health Officers in provincial hospitals	4	IDI
	• WCC Health Officers in district hospitals	8	IDI
	• Public Health Officer, Sub-district Health Promoting Hospital	8	IDI
	• Village health volunteers (VHV)	32	IDI
Beneficiaries	1. Pregnant women	64	Questionnaire/IDI
	2. Postnatal women (of children aged 0-11 months)	80	Questionnaire/IDI
	3. Parents/caregivers of children aged 0 – 2yrs	240	Questionnaire/IDI

Qualitative data were obtained from informants through in-depth interviews (IDI), using guidelines developed following the quantitative data collection, in consultation with the DOH and UNICEF (see Annex III). Owing to the restrictions due to the COVID-19 situation, interviews were conducted online through Line application and phone.

The original planned methodology was for IDI to be accompanied by focus group discussions (FGD), among beneficiaries and VHVs, in order to obtain complementary data from a group perspective. Unfortunately, due to the social isolation restrictions due to the COVID-19 pandemic, it was not feasible to conduct FGD. In order to

help mitigate the impact of the loss of FGDs on data collected, the number of IDIs was increased, with an attempt to purposively select informants representing a wider range of experiences.

In addition to data obtained through IDIs, it was planned to obtain additional information by observation, including clinical facilities and behaviour, as well as the beneficiaries' situation and behaviour in their homes and surrounding communities. Site visits and checklists were planned to assess the facilities provided in hospitals. However, due to the COVID-19 pandemic, site visits were not possible, so online media were used instead to obtain this information as part of the interviews undertaken with ANC and WCC officers.

For the sampling strategy for qualitative data please see annex IV.

2.5 DATA ANALYSIS

Quantitative data analysis was applied to analyze data from questionnaires completed by beneficiaries using descriptive statistics.

Qualitative data were analysed using an iterative analytical process for thematic identification and triangulation based on multiple stakeholders' feedback. Data obtained from this component were fed into the evaluation report to complement quantitative data and address the key evaluation questions.

Where possible, illustrative direct quotes from beneficiaries and stakeholders were selected to illustrate key findings. Moreover, having a participatory approach ensured that several stakeholders could be contacted multiple times to ensure that data was triangulated throughout the evaluation.

2.5.1 INCREASING RELIABILITY AND VALIDITY OF DATA

In order to increase the reliability and validity of the findings, the following methods were used during the preparation of data collection tools, fieldwork, and data analysis:

- Having a variety of item types (multiple-choice, open-ended, quantitative and qualitative questions) in questionnaires, presenting and accounting for multiple response types, and ensuring objective answers;
- Triangulation of data to enable cross-validation and verification of main findings on each topic from two or more sources and through interaction with beneficiaries in two format types, and survey interviews. This enable capturing of different dimensions of the same process and reduction of respondent bias;
- Comparison of findings from multiple stakeholders;
- Well-documented audit trail of materials and processes; and
- Making cross-references to quantitative aspects wherever possible.

Feedback was obtained from members of the Steering Committee through workshops that were conducted at both the inception stage, and after the preliminary analysis of the findings and draft report. This helped validate and triangulate findings, obtain a wide range of perspectives and yielded insights into the dynamics of the programme. Another workshop is planned to present the final evaluation report.

2.5.2 ETHICAL CONSIDERATIONS

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or

comparable ethical standards. The study was approved by the Committee of Human Rights for Experiments Conducted with Human Subjects of DOH, MOPH of *ETHICS APPROVAL NUMBER* 442, 11 January 2021 (see ANNEX III).

Before administration of questionnaires, or the commencement of IDI, informants were provided with an explanation about the purpose and the process of the study and asked to sign an informed consent form to certify that they had received the information about the nature of the research and that were willing to participate in the study. If any participant wanted to discontinue his/her participation in the research project, he/she had the right to do so without any prejudice. Confidentiality was maintained through not disclosing names or other identifying information regarding informants, coding, and safe storage of responses.

2.5.3 INCLUSION OF EQUITY AND GENDER EQUALITY MAINSTREAMING PRINCIPLES

The human rights-based approach helps ensure that key gender equality (GE) and human rights (HR) principles (as identified by the UNEG) were taken into account throughout the evaluation process through: non-discrimination and equality, participation and inclusion, accountability and the rule of law, gender mainstreaming.

For this evaluation, these principles were operationalized by:

1) Ensuring there were opportunities for interested stakeholders to participate in the evaluation process;
2) Recognizing and mitigating power dynamics by ensuring men and women could participate, and ensuring a gender-sensitive team of evaluators; and,
3) Ensuring that questions included in the Evaluation Matrix were informed by Gender Equality and Human Rights principles.

2.6 EVALUATION LIMITATIONS

Various limitations and challenges were encountered in the course of the evaluation work. Of these, the most difficult to deal with was the COVID-19 pandemic, which, as mentioned previously, impacted quite strongly on sampling and data collection, in particular on selection of provinces and the proposed methodology, which included conduct of IDIs. The limitations are described in **Table 4** below, together with information on the strategies that were used to overcome them.

Table 2 Evaluation limitations and mitigation measures

LIMITATIONS	IMPACT (Minor/ Moderate/ Major)	METHODS EMPLOYED TO OVERCOME LIMITATIONS
Limited number of provinces due to small budget	Moderate	• Use random sampling technique in selecting study provinces

LIMITATIONS	IMPACT (Minor/ Moderate/ Major)	METHODS EMPLOYED TO OVERCOME LIMITATIONS
Small sample size of the beneficiaries due to low birth rate in Thailand	Moderate	• Data was collected and analyzed using both quantitative and qualitative methods for triangulation.
Bias against under-represented groups in the selection of respondents as a result of convenience sampling due to travel restrictions	Moderate	• When appropriate, data was disaggregated by individual characteristics (e.g., sex, age, income, disability, religion, ethnicity, and indigenous status), economic activity, and spatial dimensions (e.g., urban and rural). • Data was collected and analyzed using both quantitative and qualitative methods for triangulation.
Inability to conduct on-site interview data collection due to COVID-19 lockdown measures	Moderate	• Use of remote data collection and analysis methods • Surveys via mobile phone, email, online tools. • Use of Line application by video call for initial contact and then interview via Line. • Interview via phone call for members of target group who could not use Line or any application from a smartphone.
Inability to conduct on-site measurement of child nutritional status and development data collection due to COVID-19 lockdown measures	Moderate	• Use of secondary data from the Pink Book
Limited availability of field office staff and counterparts due to COVID- 19 response	Moderate	• Where selected provinces faced a COVID-19 burden, the evaluation team chose a nearby province located as close to the original province as possible. The COVID-19 situation of each province was an essential criterion for province selection. • At the provincial level, sampling 2-3 districts involved consultation with the Provincial Public Health Office for recommendations on districts with low or zero COVID-19 cases. • Data collection time was extended.

LIMITATIONS	IMPACT (Minor/ Moderate/ Major)	METHODS EMPLOYED TO OVERCOME LIMITATIONS
Some programme documents were restricted to internal use. This limited the evaluation's ability to use the respective information and make reference to the source documents.	Moderate	• Avoided using these sources to describe the contextual factors that directly impacted the evaluation.
There was less possibility of carrying out focus group discussions (FGD) due to the COVID-19 pandemic. The target group felt unsafe to join the focus group.	Moderate	• The evaluation used in-depth interview methods for qualitative data collection with an increased number of respondents.

3. FINDINGS OF THE EVALUATION

The evaluation findings presented here are organised according to the Organization for Economic Co-operation and Development's Development Assistance Committee (OECD/DAC) criteria of relevance, effectiveness, efficiency and sustainability, together with the additional criterion of "inclusiveness", which includes the cross-cutting issues of equity, gender and human rights.

3.1 RELEVANCE

Question: To what extent did the First 1,000 Days programme respond to and meet the identified needs of the target groups?

3.1.1 Were the objectives of the intervention relevant to identified needs of the target groups?

The evaluation found that the programme objectives are relevant to the needs of the target groups and national policies and strategies. Thailand still faces the problem of malnutrition and delayed development among infants and children aged 2 years and under. The latest MICS6 survey, conducted in 2019, reported that only 14 per cent of infants aged 0-6 months received exclusive breastfeeding, and stunting and wasting among children under age 5 were 13.3 per cent and 7.7 per cent, respectively. This programme aims to address this situation by improving child growth and development during the first 1,000 days of life (the time spanning conception and the child's second birthday), a unique period of opportunity when the foundations of a person's optimum health, growth, and neurodevelopment are established. The target groups thus comprise: i) pregnant women; ii) infants 0-6 months; and iii) infants aged 6 months-2 years.

The programme is consistent with the goals of the National Strategy (2018-2037)[11], particularly strategy 3 on developing and strengthening human capital, which aims to develop Thai people of all ages in a multidimensional manner to become good, skilful, and quality citizens. The scope covers promotion of physical, mental and intellectual qualities, adequate multidimensional developments, sustainable welfare at all stages of life, promoting public mindedness, and generating social responsibility. This strategy intends to strengthen human capital by promoting life cycle development with a key emphasis on developing people of all life stages, according to their age group and development needs, from pregnancy, childhood, adolescent, school-age, working-age, to old age.

An additional goal of the MOPH's 20-Year National Strategic Plan for Public Health[12] is healthier people, happier health care workers, and a sustainable health system. The first strategy is Promotion, Prevention, and Protection (PP&P) Excellence, of which one key aspect is building and strengthening the capacity of women as well as children in their early childhood. The objective is to develop a healthcare system with health facilities at all levels

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[11] http://nscr.nesdb.go.th/wp-content/uploads/2019/10/National-Strategy-Eng-Final-25-OCT-2019.pdf

[12] Twenty-Year National Strategic Plan for Public Health (2017-2036). First Revision 2018. Strategy and Planning Division (SPD). Office of the Permanent Secretary (OPS). Ministry of Public Health (MOPH).

meeting the quality of mother and child health standards and ensuring that young children achieve proper developmental milestones.

The First 1,000 Days programme is relevant to UNICEF goals related to pregnant women, newborns and children under the age of 5 years, which comprise the ending of preventable maternal, newborn and child deaths, and promoting the health and development of all children.[13] UNICEF's strategy includes improving the quality of ANC, maternity and perinatal care for women and newborns, improvement of the quality of maternal nutrition, and increasing service providers' and clients' awareness of good maternal health and nutrition. For children aged 28 days to 5 years, UNICEF supports an integrated approach to early child health care, with a focus on under- and over-nutrition, and vitamin and mineral deficiency, improving community-level health literacy, and support for community-level interventions related to early child development. The First 1,000 Days programme is consistent with those of these goals.The relevance of the programme objectives was also evidenced during interviews with beneficiaries. IDI data shows that all beneficiaries wanted their children to have appropriate growth and proper development. Pregnant women said they wanted to give birth easily and for their babies to have normal birth weight and be good-tempered. Carers of children 0-24 months desired to see their children develop well, grow well, be healthy, and not get sick easily.

This programme aims to improve child growth and development during the first 1,000 days of life (the period spanning conception and the child's second birthday), a unique period of opportunity when the foundations of a person's optimum health, growth, and neurodevelopment are established. The programme is highly relevant to the need of the beneficiaries.

"We needed our children to have normal growth and good development" (group of beneficiaries)

3.1.2 Were the activities appropriate to the needs of the target group?

Activities implemented under the First 1,000 Days programme match the needs of the target group. Nutrition is an important component of the programme, and the interventions related to food and nutrition are relevant to the expressed needs of the beneficiaries: 75 per cent, 65 per cent, and 63.9 per cent of pregnant women, postnatal women, and childcarers, respectively, said that food and nutrition were a priority for them. Beneficiaries stated that "when pregnant, the nutrients enter the baby directly, making the baby healthy, with healthy growth" and, regarding children aged 0-24 months, "proper food makes children strong and have healthy bodies and brains."

Activities implemented under the First 1,000 Days programme match the needs of the target group. Beneficiaries stated that food and nutrition were the most important priority for them. Beneficiaries observed, "When pregnant, the nutrients enter the baby directly, making the baby healthy, with healthy

growth" (pregnant women), and "proper food makes children strong and have healthy bodies and brains" (caregivers).

Nutrition activities were based on the learning theory that the provision of knowledge and skills can change attitudes and practice. However, according to the food security model, three main factors affect nutritional status: food availability, food access, and food utilization. For this reason, the programme's nutrition activities are linked to the provision of knowledge by ANC/WCC staff and in beneficiaries' homes through visits by VHV and by health personnel with food demonstrations, practical training in food preparation, and interpreting nutrition assessments with the provision of eggs and milk to beneficiaries, especially those who have malnutrition.

Many beneficiaries who were already in the low-income group and in the context of the COVID-19 pandemic were less able to afford their standard living costs. Even though mothers/families were already receiving the Child Support Grant (and possible COVID-19 grant assistance), informants said that was still insufficient to cover their costs. Some beneficiaries stated that they needed more support for food and child care items (12.5 per cent, 13.8 per cent, and 50 per cent of pregnant women, postnatal women, and childcarers, respectively). It appears that food security is an important factor influencing the nutritional status of pregnant women, breastfeeding mothers, and infants. According to the evidence, the programme should pay more attention to food security among childcarers since this group is not under other social assistance programmes.

Most mothers included in the evaluation had to work outside their home, usually leaving children in the care of grandmothers. However, in most cases, the mothers took the child to visit WCC and received advice, especially on nutrition. Nevertheless, mothers found it difficult to follow the nutritional advice received, as they were overruled by the grandmothers (their own mothers or their husbands' mothers) who had the power to influence their daughter or daughter-in-laws' and grandchildren's diet. Data from IDI found that mothers needed health officers to provide information to the grandmothers.

In recognition of the fact that "health is a state of complete physical, mental and social well-being"[14], the programme aimed to improve the physical, mental and social well-being of beneficiaries during pregnancy. Activities for pregnant women included sleep and the promotion of physical exercise. This was consistent with their needs, for example, pregnant women said that pregnant women should not be stressed or irritable, which could impact the fetus and the brain. Beneficiaries were generally satisfied with the ANC services provided. However, there seems to be a need for better coordination between ANC services to increase the safety of deliveries. During an interview, one hospital executive pointed out that in the Thailand health care system, many pregnant women attend ANC at HPH, but delivery takes place at the district or provincial hospital. However, the hospital does not always receive information on any potential risks for delivery before admission, which could help the obstetrician and pediatrician plan and prepare for the delivery.

Child development activities for children aged 0-2 years that included play, storytelling, and use of the DSPM, corresponded to the needs of childcarers. A third (33.3 per cent) of consulted childcarers stated that child development was of primary importance, including encouraging children's behaviour, play, family relationships,

[14] https://www.who.int/about/governance/constitution. Accessed 20 November 2021.

environment, and exercise. These child development activities involved providing knowledge to beneficiaries both from ANC/WCC staff and VHV. As with nutrition, knowledge is important, but accessibility to equipment or places to promote child development also needs more attention. The findings from MICS6 reported that households had few books for children. Play activities were provided in the NDDC (nutrition development dental corner), which are located in HPH, which children visit infrequently. Playgrounds, or space for playing with toys, and looking at books, should be located in the community, where they are easily accessible by the careers. Regarding the use of the DSPM, while recognizing its value as a useful tool for improving child development, some duty bearers suggested that it indicates only minimal levels of proper development and is of greatest value in solving the development problems. One informant said that although the children have proper development, they should be promoted for better development.

A key part of the programme strategy was to engage with communities and local networks. Enhancing the ownership of the programme at the local and community level is important because these organizations are able to form close relationships with beneficiaries. This follows an ecological approach that focuses on both population-level and individual-level determinants of health and interventions and considers community-based issues rather than just an individual focused. This is reflected in comments made by beneficiaries during interviews, where a few pregnant women who participated felt that more support is needed from their local communities. Beneficiaries were unsatisfied with the current support from local government**.** A total of 81.25 per cent, 50 per cent, and 91.67 per cent of pregnant women, postnatal women, and childcarers, respectively, expressed their dissatisfaction during the interviews; childcarers stated that they need more provision of playgrounds or children's toy corners to promote the development of children in the community. As one informant said, "I want the environment to be adjusted because some areas are crowded and it will affect children, so there should be parks for pregnant women." Thus, the DOH should have open communication strategy such that it could receive timely local demand on the First 1,000-day programme. Such a strategy could lead to greater ownership of the programme in the medium- and long-term.

Several programme activities were planned to be implemented with support from local government organizations, including establishing children's playgrounds, home visits from local networks, and distributing milk and eggs to beneficiaries. However, in practice, few activities were actually implemented. This was confirmed by data obtained from interviews with VHV, all of whom reported that there were no such activities in the villages. Information from questionnaires completed by beneficiaries also showed that all of them had never received milk or eggs, even though many people, especially the poor, said they needed this support.

From the information obtained, the lack of local support is unclear. The health officers interviewed reported that they always coordinate with the local government, but this appears to be mostly in committee meetings about health conditions in daycare centres under the local government's responsibility, not about health during the first 1,000 days of life. Data from interviewing local government officers found that this programme had not been launched in any subdistrict as yet. Based on these findings, it is recommended that the programme improves coordination with local government through various additional channels, such as increasing engagement with VHVs, arranging special briefings for local officials on the programme activities by ANC and WCC staff, working with sub-district administrative organizations to set aside budget allocations and inclusion of community activities such as playgrounds, play spaces, equipment and provision of milk and eggs in annual plans.

3.1.3 To what extent were programme results based on a theory of change (TOC) clearly outlining intervention logic and a results chain?

The manual of the First 1,000 Days does not clearly outline the intervention logic and a results chain. The basic programme structure and its implementation mechanism remain the same as in the previous national programme where an explicit theory of change was not developed to describe the programme strategy and the expected results.

A theory of change (TOC) is a logical sequence mapping and process of critical thinking that considers the contextual circumstances influencing the motivations and contributions of the programme, actors and stakeholders based on values analysis, world view and philosophical change, as well as various assumptions on how and why a change might lead to desired outcomes. Therefore, there is a great necessity to embed TOC in the programme.

The programme's logical framework was developed, which explained indicators at each programme level: goals, purposes, and output. However, as a monitoring tool, a logical framework has a strong tendency to favour product output in terms of reporting, which is sometimes too narrow in focus and places the expected effects at the centre. A logical framework is always used to evaluate and request external evaluators to make the indicators as the benchmark of work assessment. In comparison, a TOC requires: logical sequence mapping and a process of critical thinking which considers the contextual circumstances influencing the programme; consideration of the actors' and stakeholders' motivation and contribution based on values analysis, world view and philosophical change; and makes various assumptions on how and why a change or sequence might influence initiative outcomes. In comparison, a logical framework is a rigid and strict means of showing outputs in a very short period of time. Therefore, there is a great necessity to replace it with a TOC, to keep the process flexible rather than prescribed.

3.2 COHERENCE

Question: To what extent has the programme been compatible with other interventions, including policies in Thailand that are related to the area of ANC/WCC and Early Childhood Development (ECD)?

3.2.1 To what extent has the programme been compatible with other interventions?

The evaluation team found that the First 1,000 Days programme is highly compatible with existing MOPH policies. MOPH area of work comprises two clusters: medical services and public health services. When a programme is launched from the MOPH policy level, it is recognized by all MOPH officers, and implementation involves both officers in the medical service and public health service. DOH works to promote health and environmental health under MOPH had main responsibility for the programme. Therefore, this programme has been processed by the coordination of organizations under DOH such as the Bureau of Nutrition, Bureau of Health Promotion, Bureau of Dental Health, Bureau of Food and Water Sanitation, Bureau of Environmental Health, Bureau of Reproductive Health, Health Literacy and Communication Promotion Division.

The programme is compatible at the national level. DOH coordinates with two ministries whose work related to health: MSDHS, which is responsible for ensuring the well-being of people and the quality of society, and the Department of Local Administration (DLA), MOI, whose main responsibility is to promote and support the work of Local Government Administrations (LGAs). Following the 1999 Local Government Plan and Procedures Act,[15] the Constitution of the Kingdom of Thailand requires states to decentralize local authorities, including public services related to public health. However, from the findings, there were a few compatible works of both MSDHS and MOI at the local level. Desite this, none of the SAO/SM interviewed had related activities in their yearly plan.

This situation was confirmed by data from hospital executives, who said that the work under the First 1,000 Days programme was the same as work they had previously carried out. The MCH Board had already developed a response to maternal and child health before the First 1,000 Days programme and this was still in place. ANC and WCC continued to work in the same way as before the programme: “the programme was consistent with recent work focusing on exclusive breastfeeding, food, oral care, and child development” (ANC Officer). Another ANC health officer added: “This programme can be integrated into our tasks. The officers are more understanding and focused on the work.”

The programme is highly compatible with existing MOPH policies. “The programme was consistent with recent work focusing on exclusive breastfeeding, food, oral care, and child development” (ANC Officer). However, in the past, nutrition for MCH was not regarded as important: “This programme focuses more on nutrition monitoring and surveillance of the mother and child” (MOPH technical officers).

Most public health officers said that the First 1,000 Days programme is linked to all dimensions of food development and self-care knowledge because it is important to all groups of service providers. They stated that this programme enhanced the importance and focus of child development and nutrition, which is necessary as, in the past, nutrition for MCH was not regarded as important: “It is the same job, nevertheless, this programme focuses more on nutrition monitoring and surveillance of the mother and child. In this programme, nutrition knowledge can be used more clearly in parental school training” (MOPH technical officers). The increased importance of nutrition was also found at the national level. The national health key performance indicator (KPI) in 2016 included the development of children aged 0-5 years and the nutritional status of school-age children, but not the nutritional status of children aged 0-5 years. However, from 2017 onwards, since the First 1,000 Days programme was initiated, the nutritional status of children aged 0-5 years has been added to the national health KPI. The linkages between the programme and other health sectors were further confirmed by district public health officers, all of whom agreed said that the programme is linked to other health activities: “It is linked to teaching about development, nutritional care, oral care, environmental health, food and water control for HPH, local teachers, and community mentors” (MOPH technical officers).

The programme is compatible with the 10 Packages programme developed by the Bureau of Health Promotion, DOH. The 10 Packages programme aims to improve working people’s health in the workplace. The package compatible with the First 1,000 Days programme is package 4, which encourages taking care of children by

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[15] สำนักงานคณะกรรมการกระจายอำนาจให้แก่องค์กรปกครองส่วนท้องถิ่น, ราชกิจจานุเบกษา เล่ม ๑๑๖. ตอนที่ ๑๑๔ ก. : พระราชบัญญัติกำหนดแผนและขั้นตอนการกระจายอำนาจแก่องค์กร ปกครองส่วนท้องถิ่น พ.ศ. ๒๕๔๒. (ลงวันที่ ๑๓ พฤศจิกายน พ.ศ.(๒๕๕๒). ๒๕๔๒

breastfeeding, vaccination, and child development. However, no evidence for the 10 Packages programme was found in any of the eight sub-districts included in this formative evaluation.

3.2.2 Has the project facilitated synergies with interventions and strategies promoted by other Ministries in Thailand?

A basic concept of the First 1,000 Days programme is that, in contrast to previous approaches, ANC and WCC activities are not limited to clinics, but involve families and communities. This necessarily means linkages with programmes that come under the responsibility of other ministries, in particular MSDHS, MOI and MOE. In planning the programme, the MOPH engaged with these ministries. Thus, as part of the programme design process, the MOPH coordinated with MSDHS at the ministry level, which means that the First 1,000 Days programme should be recognized by all MSDHS officers. The main means of coordination with MSDHS and other ministries during implementation are the Provincial Early Childhood Development Subcommittees. This subcommittee consists of Provincial Governor as the chairperson, with representatives from MOE, the MOI (including the Department of Local Administration), MSDHS officers, the Provincial Public Health Office, and other related regional public sector. The role of the subcommittee covers the coordination of early childhood support from the period from pregnancy until the age of 5 years.

In regard to child care and development, the main job of MSDHS provincial officers involves daycare, running of daycare centres, and management of the Child Support Grant that the government provides to newborn children up to 6 years of age. Daycare centres are designed for children over 2 years of age, however, under the Child Support Grant scheme, parents of newborns up to the age of 6 receive a government payment of 600 baht per month as part of measures introduced by the government to benefit newborn childcare. All mothers interviewed were satisfied with this support and said that it had helped them to provide more child care. Given the significant help this support provides, it is important to monitor the payment's benefits according to its objectives.

However, from interviews it appears that while most MSDHS officers had heard of the First 1,000 Days programme from meetings and documents from the ministry, in practice few participated in the programme, and there was no plan for this. MSDHS officers from one province did mention that the First 1,000 Days programme is coherent with three aspects of their work: 1) provision of knowledge on nutrition; 2) oral care for children; and 3) child development site visits during the COVID-19 pandemic. Data from beneficiaries seemed to agree with this, for example one childcarer said "that MSDHS officers make visits and ask for information on children, then go back and do nothing." This information is consistent with interviews with VHV, who said that MSDHS officers had come to explore the problems of both target groups: pregnant and breastfeeding women. Furthermore, representatives of other ministries that are active in the community, such as the Agricultural Extension Officers, appear to have had no involvement in the First 1,000 Days programme.

Outside the activities of government agencies, in some settings there was evidence of activities supported by other organizations that complemented those of the First 1,000 Days programme. In one sub-district, an Older Persons Group supports sharing of knowledge with beneficiaries. Another sub-district reported that there was a private foundation that had been involved in supporting the village's children, including newborns, handing out items and equipment such as toothbrushes, toothpaste and also providing items for the HPH to distribute. One informant mentioned that "The Thai Red Cross cooperates with local government to provide sustenance bags, food, utensils, milk powder, and diapers to the target children". Another sub-district reported that "Credit

Union Cooperatives give out awards, gifts and honours to breastfeeding mothers until the end of six months." Another organization that provides support to the target group is the Association of the Physically Handicapped of Thailand, which provides care and support for children who have delayed development.

One of the limitations of this evaluation is that only eight sub-districts participated in the study, however, based on the information obtained, it is clear that the Ministry of Labor needs to be involved and take a role in the programme to help workers to reconcile work and family responsibilities and advance the well-being and development of their children. Exclusive breastfeeding for six months after birth is essential for children. Breastfeeding is key to the comprehensive development of children, for mothers and society, and both WHO and UNICEF have made an effort to promote breastfeeding. The recommended strategies are to ensure that sufficient paid leave is provided to all parents and caregivers, in both the formal and informal economies, to meet the needs of their young children (this includes paid maternity, paternity, and parental leave, and leave to care for sick young children), and providing breastfeeding corners in the workplace.

In summary, while preparation of the First 1,000 Days programme involved consultations with other ministries, and the programme design structure includes coordination mechanisms, the engagement with other ministries has been limited, and the potential benefits through synergies and cooperation at the community level have not been realised. Policy coordination with other ministries is important, especially with the Ministry of Labour for working women, and the Ministry of Agriculture and Cooperatives for the community.

Under the Child Support Grant scheme, parents of newborns up to the age of 6 receive a government payment of 600 baht per month as part of measures introduced by the government to benefit newborn childcare. All mothers interviewed were satisfied with this support and said that it helped them provide more child care.

3.3 EFFECTIVENESS

3.3.1 Question: How effective was the programme design?

How appropriate was the programme approach and model of implementation in regard to achieving expected objectives and results?

All MOPH staff agreed that the programme approach and implementation model was appropriate in achieving expected objectives and results. One regional executive stated that "For child development, the principle of integration from upstream, midstream, downstream is the value chain of the work from start to end, and then

the health system from primary, secondary, tertiary, comes together. They call it vertical integration, which is that vertically, horizontally, it is integrated, that it is conducted in each profession, helping to perform each part."

Other MOPH officers provided the following opinions:

"Pregnant women, breastfeeding women and parents/childcarers are healthier and happier because they have better nutrition than before. We focus on having more knowledge of self-care decisions." (Technical officer).

"During in-depth assessment of the clients, emphasis is placed on the reach and understanding of pregnant women and their attendants." (District officer)

"Clearly divided by age group, they [parents and childcarers] are important groups that promote the development of long-term impact on children in the future." (Sub-district officer)

The programme's outcome was healthy height and weight and optimal development. The evaluation found that, in general, there was proper development of all the children. Only one child was reported to have delayed development. Of some concern is the fact that, for 52.6 per cent of children, child development data had not been recorded in their Pink Book. Given the importance of the Pink Book as a means of encouraging parental engagement in growth monitoring, as well as the book's value as a record, this suggests that further encouragement needs to be given to WCC staff to ensure regular updates are made.

52.6% of children's child development data had not been recorded in the Pink Book. Given the importance of the Pink Book as a means of encouraging parental engagement in growth monitoring, as well as the book's value as a record, further encouragement is needed for parents to record their child's information.

A total of 7.05 per cent of children had low birth weight (birth weight lower than 2,500 grams), slightly higher than recorded in the national report in 2021 (6.4 per cent)[16]. Meanwhile, 56.43 per cent of children had healthy height and weight, which was slightly lower than the rate in the 2021 national report (60.1 per cent)[14].

This evaluation found that 9 per cent of children were stunted, which was lower than the KPI stated by the DOH in 2020 (12 per cent). However, 14.52 per cent of children were wasted, and 12.03 per cent were classed as overweight and obese. The rates for wasting and overweight children were more than the 2020 DOH KPI (5.5 per cent and 11.6 per cent, respectively). Due to the COVID-19 pandemic in Thailand from 2020 to the present day, MOPH staff have focused a lot of effort on decreasing COVID-19 infection through health promotion activities in the community. Furthermore, as a result of the economic impacts of the pandemic, beneficiaries' income had reduced, which affected food security and child care practices. The programme did not have an approach and model of implementation regarding achieving expected objectives and results in such a crisis. However, as a result of the limitations placed on the study's data collection by the COVID-19 pandemic, data on children's nutritional status was collected using the data recorded by parents/carers in the Pink Book.

[16] https://hdcservice.moph.go.th/hdc/main/index.php. Accessed 21 November 2021.

Pregnant women

The programme approach and model of implementation as shown in Figure 1 were appropriate to most pregnant women. However, some efforts are needed to improve the implementation.

The programme output from the survey (Table 5) found all pregnant women visited an ANC clinic for appointments. However, the evaluation findings indicate that, while beneficiaries had relatively high levels of knowledge of healthy behaviours relating to diet, nutrition, rest and oral health, the percentage who received advice and training on these topics from ANC staff was relatively low. In regard to nutrition practice, the percentage of pregnant women who said that they consumed the five food groups, eggs, and milk every day, was 43.8 per cent, 40.6 per cent, and 67.2 per cent, respectively. Only 28.13 per cent stated that they were taught about food preparation, and just 12.5 per cent were trained in meal preparation. Additionally, only 17.2 per cent had received instructions from ANC on how to plot the gestational graph. Meanwhile, 59.4 per cent used iodized salt in the household, 89.1 per cent consumed iodine, iron, and folic acid tablet every day, and 96.9 per cent brushed their teeth twice daily.

Only 28.13% of pregnant women were taught about food preparation while attending ANC, and just 12.5% were trained in meal preparation. Additionally, only 17.2% had received instruction on how to plot the gestational graph.

Only a small percentage (32.8 per cent) of women said that they had received advice about adequate sleep, however, all informants said they already knew this. In regard to oral health care, the reported awareness of pregnant women on oral health and preventive behaviour was quite high, but the percentage of women who received instruction on oral health care was relatively low, with less than two thirds receiving oral health checks. Nevertheless, over 70 per cent were found to have oral health problems, most of which comprised plaque build up or cavities. While this may suggest either a disparity between the women's stated knowledge or behaviour and actual knowledge or practice, or a lack of access to or utilization of dental services, it does indicate a gap between the programme model and the expected results.

Table 3 Programme output for the three target groups

Practice	Pregnant women (%)	Postnatal women (%)	Children 6-24 months (%)
Food consumption every day			
- Five groups consumption*	43.8	43.8	22.1
-Breast milk	-	-	17.5
-Milk consumption	67.2	41.3	92.2
-Egg consumption	40.6	40.0	38.3
Coverage of households using iodized salt	59.4	45.0	
Consume iodine, iron, and folic acid tablet every day	89.1	79.4	-
Child consuming weekly iron supplement	-	-	63.0

Brush teeth twice a day	96.9	97.5	71.5
Using DSPM at least every month	-	-	72.0
Coverage of households having clean water	100.0	100.0	100.0
Home visits**	17.2	43.7	44.8

Note: *The five food groups refers to rice and flour, vegetables, fruits, meat and milk.

Another programme activity consisted of home visits to pregnant women. It was found that only 17 per cent of pregnant women received home visits from health workers, VHV, or the community mother and childcare team. A total of 19 per cent of pregnant women said that they needed home visits for child growth and development – for example, "I would like to be visited every month" – and expressed a desire for more advice to track their signs and symptoms, especially pregnant women with diabetes. Three pregnant women said, "It is lucky that our houses were close to VHV so that we could consult as needed." Additionally, due to the COVID-19 situation, nine pregnant women felt uncomfortable visiting the clinic, and six said they needed a home visit Instead.

The interesting approach for providing knowledge to the target groups was online or by phone, especially in the COVID-19 pandemic. Survey data also reported that the first three sources of information were the website (93.8 per cent), Facebook (84.4 per cent), and public health staff or clinic officers (59.4 per cent). The eight pregnant women suggested that during waiting for ANC service, the officers should provide some activities, such as exercises, an interactive informative game using the Line application, and breathing practice for pregnant people.

Postnatal women

Findings from data gathered from postnatal women also indicated that there is a gap between the programme model and expected results. This was similar to the findings for pregnant women, but the achievement of each output was less than that group. As shown in Table 5, the food consumption pattern of postnatal women showed that 43.8 per cent consumed five groups of food each day, 41.3 per cent drank milk, 40 per cent consumed egg, and 45 per cent used iodized salt in the household. Daily iodine, iron, and folic acid tablet intake and brushing teeth twice were 79.4 per cent and 97.5 per cent, respectively. However, only 56 per cent were aware that not enough iodine can affect a child's brain.

A total of 85 per cent of postnatal women were given iodine, iron, and folic acid tablets. However, 20.6 per cent did not take the pills every day. The reason given by all these beneficiaries was that they forgot to take the pills. Postnatal women had good knowledge about the proper amount of sleep (87 per cent) recommended. Most postnatal women could sleep between 6-8 hours a day, but some women said they had difficulty sleeping and some woke up at night because of their children.

Worryingly, a relatively high percentage of women (over 61 per cent) held the mistaken belief that giving water to their babies during the first six months after birth makes it easier for the baby to excrete. Twenty-five per cent of postnatal women included in the evaluation said that the hospital did not immediately bring their babies to breastfeed within two hours after childbirth. Various reasons were given for this, including caesarean section, "child health problems", and little or no milk supply. A total of 69 per cent of postnatal women reported that they had attended the breastfeeding training sessions provided by ANC staff. Over 67 per cent of postnatal women received support for breastfeeding from their husband and his parents, but 30 per cent reported

problems with breastfeeding, for example not enough milk (18.3 per cent), breast pain, the baby refusing to breastfeed, and short nipples making it difficult for the baby to suckle.

In contrast to the prenatal situation, it was found that 30 per cent of women did not go for postnatal examinations. This seems to have been mainly due to the COVID-19 situation as 28 per cent reported that the COVID-19 situation affected their attendance at postpartum examinations, with the reasons given for not visiting the clinic being that the staff were busy with the COVID-19 situation and they did not have time, and no-one was free to undertake a check-up. The programme needs to find ways to improve accessibility for all beneficiaries, despite the difficulties presented by the COVID-19 situation.

30% of postnatal women did not go for postnatal examinations, while 30% had a problem with breastfeeding, for example not enough milk (18.3%), breast pain, baby refusing to breastfeed, and short nipples making it difficult for the baby to suckle.

Even without the added pressure of the COVID-19 situation, there were many service users which resulted in limited time allocated for providing knowledge and answering the questions of each beneficiary. ANC and WCC staff explained that they carried out activities following the programme. However, data from the beneficiaries showed that not all of them participated in the activities and only about 50 per cent of beneficiaries reported receiving those services every visit. The reasons given indicated limited availability of time, such as “It’s been a long waiting”, crowding “The place is neat but crowded”, and the time allocated for providing advice was limited. Beneficiaries said that the officers provide many items of knowledge in a short time with little explanation, which beneficiaries found difficult to remember. For optimal learning outcomes, the time allocated for advice should be about 15-30 minutes; if longer than this, people can find it difficult to understand and remember. Therefore, the programme should prioritize the allocation of time for activities in clinics and encourage the use of other modalities, such as the greater use of home visits to beneficiaries to provide advice and monitor the progress of gestation.

Infants aged 0-6 months

Eighty seven carers of infants aged 0-6 months were interviewed using questionnaires. Of this number, 85 were mothers who were interviewed, while one was a husband, and one was a maternal grandparent who participated in the quantitative survey. Only one infant did not live with either mother or father.

The programme's main output for infants aged 0-6 months is the rate of exclusive breastfeeding (EBF). The survey found that 29.9 per cent received EBF, which is much lower than the target of 50 per cent.[17] However, it is higher than the figure reported in the 2019 MICS report, which was 14 per cent. Our survey and the MICS report found much lower rates of EBF than the national report shown in Table 7, in which the EBF rate in eight sub-districts during 2017 and 2021 was 56.22 per cent and 67.62 per cent, respectively. This difference might be due to the question asked. Our survey and the MICS asked mothers about the food that their child had consumed

[17] World Health Organization, United Nation Children's Fund. Global strategy for infant and young child feeding. Geneva: WHO; 2003.

24 hours before. If the mother answered other food or drink rather than breastmilk, they were not classified as EBF.

Breastmilk is highly nutritious and important for the health and development of infants. However, there is also a gap between caregivers' knowledge of infant feeding and practice. Between 80-98 per cent of caregivers said that they had knowledge about caring for children, but only 77.3 per cent knew about the importance of EBF during the first six months with no water and other foods.The programme should therefore place more emphasis on promoting exclusive breastfeeding.

Despite the advice provided to mothers by ANC staff, only 67 per cent of infants were recently breastfed, with 6 per cent never receiving breast milk. A total of 75 per cent of infants were breastfed for the first month. Other foods first fed to infants aged less than 1 month were powdered milk formula (25 per cent) and fresh drinking water (11.5 per cent). One newborn was first fed with banana puree when the child was one month old, and another was fed with Cerelac when the infant was two months old.

Foods other than breastmilk reportedly first fed to infants aged less than 1 month were powdered milk formula (25%) and fresh drinking water (11.5%). One newborn was first fed with banana puree when the child was one month old, and another was fed with Cerelac when the infant was two months old.

A total of 69% of mothers/caregivers had never received a home visit from public health officials/health volunteers.

In regard to child development activities, while WCC staff encouraged childcarers to read books or stories to infants, only 51.7 per cent of childcarers reported story or picture books at home, and most of these (60 per cent) had less than 10 books. However, only 32 per cent of the childcarers had ever read or verbally shared any tales or stories with their infants. Most childcarers (over 95 per cent) did play regularly with infants and, despite increased access to electronic devices, most childcarers (80 per cent) stated that play did not involve electronic devices.

Children aged 6-24 months

The evaluation team found that there was a gap between the outputs and outcomes planned in the programme model and the actual results, as with the situation for pregnant women. Information on children aged 6-24 months was obtained from questionnaires completed by 154 childcarers (75 per cent of whom were mothers) and data recorded in the Pink Book. It was found that 5.2 per cent were preterm babies (< 37 weeks of gestation), and 6.2 per cent of babies delivered at full-term had birth weights lower than 2,500 grams. These rates are better than the KPI in 2020[18], which was 7 per cent for LBW and < 9 per cent for preterm delivery.

Further encouragement is also needed for iron supplementation and exclusive breastfeeding. While the First 1,000 Days programme includes iron supplementation for all children, only 73.4 per cent of the children

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[18] ระบบสารสนเทศสนับสนุนด้านการส่งเสริมสุขภาพและอนามัยสิ่งแวดล้อม. https://dashboard.anamai.moph.go.th. Accessed 21 November 2021.

surveyed had received iron supplements, and just 63 per cent consumed the iron supplements regularly every week. Most of the children (94.2 per cent) had received breastfeeding. However, breastfeeding was not exclusive during the 0-6 months age bracket, and 31.8 per cent of children were first fed with fresh drinking water at less than 4 months old, while 53.9 per cent were first given drinking water at 5-6 months old. Over 47 per cent of children were reportedly first fed formula milk/instant powdered milk at the age of 4 months.

There is also a gap between caregivers' knowledge of infant feeding and practice. About 80-98 per cent of caregivers said that they had knowledge about caring for children, but only 77.3 per cent knew about exclusive breastfeeding during the first six months with no water and other diets. When children's food consumption during the past week was explored, it was found that most children (83.1 per cent) consumed rice 2-3 times a day and formula/instant powdered milk (59.1 per cent). Only 38.3 per cent of children had been fed with eggs every day, while 11 per cent had been fed with some crispy snacks every day. A small proportion of children had been fed with flavored pasteurized milk and yogurt every day (1.3 per cent and 3.8 per cent, respectively). However, 30.5-38.3 per cent of the children had reportedly not been fed with vegetables.

While most caregivers had received instruction on the DSPM, understanding and usage of the manual were low. Most caregivers (82.5 per cent) had a copy of the DSPM. Of these, 34.6 per cent stated that they had a very good understanding, 47.2 per cent said they had some understanding, while 15.7 per cent indicated that they had never read it or understood its use or only skimmed over it. Meanwhile, 42.5 per cent of the caregivers used the manual monthly, while 20.5 per cent had never used it.

Regarding child development activities, most childcarers (99.4 per cent) said that they played with their child every day. A high percentage (98.1 per cent) of caregivers knew that storytelling could stimulate children's imagination and development. However, 44.8 per cent of the childcarers reported that they did not have story or picture books at home, and 57.1 per cent said they have never read or verbally shared any tales or stories with the children. Forty-four per cent of them had used electronic devices, namely mobile phones, tablets, iPad or computers, to play with their children, or have allowed their infants to play with the electronic devices by themselves.

WCC officers reported that they did not have any problem about provideing advice about storytelling to the caregivers who visited WCC. The advice content in the programme manual included reading stories, choosing appropriate books, the benefits for children, preparation for reading a book, methods of having fun from the book with the parents and children, technique of reading with children, and media literacy. Storytelling for children requires skill, so practice, repetition and motivation are needed. Supposing that caregivers don't have a book or cannot make up a story on the spot, then there are many other ways to share ideas and talk to children. Talking to the child or storytelling have to be appropriate to the child's age. While visiting WCC, the limited time of service is not enough to promote storytelling for caregivers. Therefore, home visits with guidelines can support this intervention. Also, it would be better to encourage giving advice about storytelling and talking to the child during WCC visits.

57.1% of carers said they have never read or verbally shared any tales or stories with children.

44% had used electronic devices, namely mobile phones, tablets, iPad or computers, to play with their children, or had allowed their infants to play with the electronic devices by themselves.

55.2% of children had received oral health check-ups in the past year.

Beneficiaries reported that the top three activities received from WCC on every visit were reporting on overall growth updates of children (56.1 per cent), plotting the weight for age graph of children (52 per cent), and plotting the length/height for age graph of children (52 per cent). In contrast, the three activities reported as being least likely to be received on every visit were the provision of advice on sharing stories with children (20.3 per cent), accident prevention for children (21.6 per cent), and advice on healthy sleep (23 per cent). In addition, 27.9 per cent of respondents reported that they had been trained on preparing proper diets for children, and 11.7 per cent had attended practice sessions on the preparation of children's diets. However, only seven respondents of both groups revealed that they had actually practiced preparing the diets for their children every day.

Oral health was another activity that was only partially implemented. Only 55.2 per cent of the children had received oral health check-ups in the past year. Of these, six were found to have problems, including cavities, dental fluorosis, and tartar or calculus. While fluorosis is endemic in parts of Thailand, the presence of cavities and calculus indicates that caregivers had not been diligent in oral health careor the child's diet, which may have included excessive amounts of refined carbohydrates.

Despite the gap between planned activities and those provided in actual practice, beneficiaries still expressed satisfaction with ANC and WCC services. When asked to rate their satisfaction with ANC and WCC services, it was found that beneficiaries were generally satisfied with the services they received (see Table 6). The top three areas of satisfaction were staff manners, ethical gestures and remarks, and information/knowledge applicable for practical use. The least degree of satisfaction among ANC users was with media and materials used for training and practice, and for WCC users was the time spent in asking questions. During interviews with pregnant women, some stated that clinics had "Good, polite service staff [who offered] service without discriminating". In addition, users felt that there was "Education on many topics related to pregnancy" and that WCC was a place where they "could ask questions." Similarly, caregivers attending WCC services were impressed with the advice given on child rearing, including story-telling for children and immunization.

The overall programme approach and implementation model were well-accepted by all MOPH staff and VHV interviewed. Health staff emphasised their commitment to the programme and said that they had tried to improve the level of indicators in their areas of responsibility by encouraging networking and capacity building, especially for VHV.

Table 4 Mean satisfaction in using ANC and WCC services

	ANC (5-scale)		WCC (3-scale)	
	Mean	SD.	Mean	SD.
Staff knowledge and expertise in taking care	4.38	0.65	2.40	0.727
Staff expertise in providing counselling	4.08	0.88	2.31	0.754
Information/knowledge applicable for practical use	4.13	0.81	2.44	0.775
Staff manners, ethical gestures and remarks	4.48	0.67	2.47	0.751
Media and materials used for training and practice	3.91	0.97	2.15	0.790
Q&A period	3.98	0.81	2.08	0.808
Staff responses to questions	4.22	0.77	2.25	0.746
Clinical environment e.g. lights, seats and treatment rooms	4.27	0.91	2.35	0.737

From the findings, there appears to be a disparity between the planned programme activities, the activities that were actually delivered through ANC, WCC, and community services, and what was actually practised by beneficiaries. Certain key elements of the programme were implemented in part or not implemented at all. Furthermore, it appears that, in some cases, even when activities were fully implemented, this did not result in any change in the behaviour of beneficiaries. This was seen most clearly in relation to the promotion of EBF. However, beneficiaries as well as health staff, including VHV, still expressed their satisfaction with services provided, as well as the programme approach.

Given this situation, where activities were not fully implemented, it is difficult to determine the effectiveness of the programme model and approach. The current COVID-19 pandemic has also created further challenges for both implementation of activities and the assessment of their effectiveness.

This evaluation found interpersonal communication for behaviour change in ANC/WCC and some home visits, but not in facility-based counselling and support groups. Only a few beneficiaries received a home visit. There was some evidence of community mobilization before the COVID-19 pandemic, primarily initiated by HPH staff, including fairs, contests, dialogues, and community radio and video production and dissemination events. The most influencers for behaviour change, especially in child-caring practices, are grandparents in the household. In contrast, this study did not find any intervention for this group.

3.3.2 Question: To what extent has the programme achieved its stated objectives? Specifically:

To what extent has the programme achieved its objectives in terms of planned geographical coverage and scope of activities?

The First 1,000 Days programme was planned to be implemented nationwide, and was launched in all provinces in Thailand. However, implementation was phased, and in regard to geographical coverage, the target was for implementation in at least one *tambon* (sub-district) in at least 90 per cent of districts of every province by 2019, and at least three sub-districts for every district by 2021.

Owing to the limited provincial sample in this evaluation, it was not possible to assess the extent to which this nationwide goal has been successful. However, in the four provinces that participated in this study, public health officers reported that at least three sub-districts in all districts in the province participated in the programme. However, owing to the COVID-19 pandemic, the provincial public health office staff could not evaluate the extent to which this had occurred.

All activities according to the programme plan were applied. These activities were surveillance/screening, social measures, communication for health literacy, management to promote health in the community, and environmental improvement for promoting health. As mentioned in section 3.3.1 above, there is a need to revise reporting on outcomes because the output and outcome are not obviously shown.

During the COVID-19 pandemic, ANC/WCC provided regular services and activities: “Clinical work was rarely affected, we just had to add COVID-19 measures for providing services.” Health workers reported that beneficiaries did not want to visit the service, which is in line with finding from the beneficiaries’ interviewing reported previously. For children at WCC, “Children were not able to use the space in the developmental examination room and cannot play together”. Additionally, some service providers reported that it was difficult to provide training due to the limited space in the clinics.

The programme achieved its objectives in planned geographical coverage: at least three sub-districts for every district participated in 2021. However, owing to the COVID-19 pandemic, the provincial public health office staff could not evaluate the extent to which this had occurred.

The problem of monitoring and inspection during the COVID-19 pandemic was limited, as MOPH staff could not physically visit sites as usual and had to conduct online monitoring instead. As one staff member said, “In normal circumstances, we go on site. During the COVID-19 pandemic, we had to monitor from the data system. We didn’t know about actual operations.” Also, “We used video call but did not know about the quality of work.”

To what extent has the programme improved the quality of ANC/WCC according to the entitlement package in regard to pregnant women (270 days), infants 0-6 months (180 days) and infants aged 6 months–2 years (550 days)?

Most clinic officers reported that the programme improved the quality of ANC/WCC by capacity building, improving understanding of the target group, and multidisciplinary involvement. Detailed improvements of ANC and WCC are explained below.

The programme improved the quality of ANC/WCC services by capacity building, improving understanding of the target group, and multidisciplinary involvement. However, only a few beneficiaries

received food demonstrations, practical training in food preparation, and training for interpreting nutrition assessment results and trends of weight gain.

Most ANC and WCC officers (83 per cent) agreed that improvements had been made to services, including: (1) clearer target group which could undoubtedly benefit from support; (2) enhanced knowledge and more training; and (3) better schedules and activities for the target group. Moreover, ANC officers (83 per cent) stated that they received more media to support work, VHV were able to identify and encourage pregnant women to attend ANC before 12 weeks of gestation, and the operational quality standards of indicators and evaluations were increased, especially regarding clinic attendance before 12 weeks of gestation. WCC officers (83 per cent) stated that they had increased their understanding of the work system. Programme packages for improved the quality of ANC/WCC include: (1) Food demonstrations for pregnant women, lactating women, and children aged 6 months-2 years; (2) Practical training in food preparation for pregnant women, lactating women, and children aged 6 months-2 years, including hands-on training for brushing teeth; (3) Practical training for pregnant women to interpret nutrition assessment results and trends of weight gain; (4) Practical training for parents/carers in interpretation of nutritional status assessment and trends in height and weight gain in children; and (5) Increased involvement of hospital nutritionists in provision of nutritional services, such as assessment of food consumption behaviour and nutritional advice.

However, the findings previously described (see section 3.3.1) showed that only a few beneficiaries received food demonstrations, practical training in food preparation, and training for interpreting nutrition assessment results and trends of weight gain. Only fifty per cent of clinic officers reported hospital nutritionists providing knowledge to beneficiaries at clinics. Moreover, only two hospitals had nutritionists providing counselling to beneficiaries experiencing nutrition problems.

What significant differences exist in work practices and outcomes within First 1,000 Days programme implementation sites in comparison with the situation before commencement of the programme?

From interviews, most public health personnel stated that their work practices were similar to practices that existed before the programme launched. However, they increasingly understood the importance of the window between pregnancy up to 2 years of age, and recognized the importance of caring for children throughout the first 1,000 days of life. One health official said: "[Services before the programme] were primarily focused on caring for pregnant women, but now the focus is on all groups that come to use the service."

As shown in Figure 3, the findings suggested an improvement in optimal development in children aged 0-5 years, increasing each year from 62.68 per cent to 67.96 per cent in 2017 and 2021, respectively. Additionally, healthy height and weight in children aged 0-2 years was increased each year from 66.36 per cent to 70.60 per cent in 2018 and 2021. The first ANC visit during 12 weeks of gestation sharply increased from 2017 to 2018 and decreased in 2019. However, in 2021, the first ANC visit during 12 weeks of gestation was slightly higher than in 2017. Low birth weight decreased from 2017 to 2019 and increased in 2020 to 2021. The COVID-19 pandemic in Thailand, starting in 2020, which affected people's economic status, may have affected these rates. However, it can be concluded that the programme is instrumental in better outcome indicators for optimal development in children and healthy height and weight in children aged 0-2 years.

Figure 3 Outcome as a percentage before and during commencement of programme (2017 to 2021)

Note: Healthy height and weight were first record in 2018. Therefore, the data shown for this indicator is from 2018 onwards. Source: Health Data Center (HDC), https://hdcservice.moph.go.th/hdc/main/index.php, accessed 1 March 2022.

Table 5 *Stunting, wasting, overweight and EBF rates compared to WHA:2030 targets*

	WHA:2030	MICS 2016**	MICS 2019**	HDC 2017*	HDC 2021*	Findings from the study
Stunting	40% reduction (0-5 years old)	10.5%	13.3%	11.99% (0-2 years old)	11.75% (0-2 years old)	8.71% (0-2 years old)
Wasting	30% reduction (in years 2025.)	12.4	7.7	4.06% (0-2 years old)	4.4% (0-2 years old)	14.52 (0-2 years old)
Overweight	No increase in childhood overweight (0-5 years old)	8.2%	9.2%	8.5% (0-2 years old)	8.9% (0-2 years old)	12.03 (0-2 years old)

Exclusive breastfeeding during the first 6 months*	at least 50%	23.1%	14.0%	62.25%	62.21%	29.9%
Low birth weight (<2500 gm.)**	30% reduction	9.4%	9.5%	5.90%	6.39%	7.05%

Note: * Source: Health Data Center (HDC), https://hdcservice.moph.go.th/hdc/main/index.php, accessed 21 November 2021. ** The number presented as a percentage

** THAILAND Multiple Indicator Cluster Survey (MICS) 2015-2016.

In order to achieve the WHA 2030 target, the programme has to increase emphasis on EBF during the first six months, and address childhood overweight rates. As shown in Table 8, childhood overweight rates increased from 8.5 per cent in 2017 to 8.9 per cent in 2021, which is close to the study's findings. The WHA EBF target during the first six months is at least 50 per cent. Nevertheless, the study found the EBF at 29.9 per cent, which is higher when compared to the 2019 MICS report at 14 per cent.

The study found an EBF rate of 29.9 per cent, which is higher than the 14 per cent reported in the 2019 MICS, but much lower than the 62 per cent rate found in 2017 and 2021 by the HDC.

Since 2020, the effect of the COVID-19 pandemic on people's economic status may have affected these EBF rates. However, it can be concluded that the programme is instrumental in leading to **better outcome indicators for optimal development in children and healthy height and weight in children aged 0-2 years.**

The COVID-19 pandemic effect on service utilization was detailed previously (see section 3.3.1). The findings found no effect on pregnant women and children as they visited by appointment, however, 30 per cent of postnatal women did not attend appointments as they were worried about the COVID-19 pandemic.

What significant differences in work practices and outcomes are there between First 1,000 Days programme implementation sites and those sites where the programme has not yet been implemented?

Owing to the limitations of the evaluation, it was not possible to undertake a direct comparison between implementation sites and sites where the First 1,000 Days programme had not yet been implemented. However, health staff in implementation sites indicated that there were no significant differences between the work practices implemented under the First 1,000 Days programme and those that they had previously carried out prior to the intervention. This seems likely to be the case for non-implementation sites. Similarly, in regard to outcomes, it is not possible to compare outcomes in implementation sites with sites where the programme has not been implemented.

However, comparison of findings from the evaluation sites with national data from the Health Data Center (HDC) database does provide some indication of whether programme activities have resulted in any differences. The outcome data in the evaluation survey was collected from interviews, together with records in the Pink Book kept by beneficiaries, except for data on exclusive breastfeeding during the first 6 months, which was collected

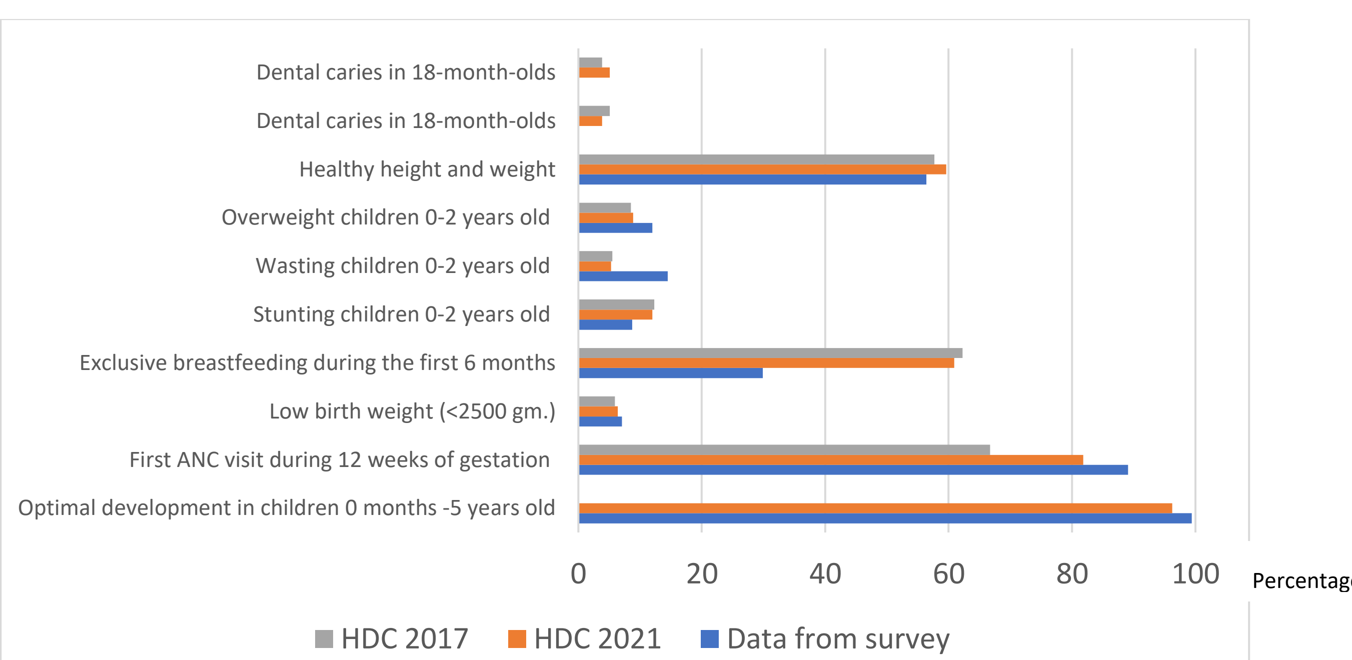
using a questionnaire to ask about breastfeeding practice and other food or drink that the infant had received during the previous 24 hours.

Figure 4 compares survey data from the evaluation with national Health Data Center (HDC) reports from all provinces in Thailand in 2017 and 2021. The table shows that findings from the survey on optimal development in children aged 0 months to 2 years are very close to those in the HDC national report. According to survey results, the first ANC visit, during 12 weeks of gestation, is also close to the findings of the 2021 HDC national report, which is higher than before the First 1,000 Days programme launched. The increase in first ANC visits during 12 weeks of gestation was also reported by the health executives interviewed in the evaluation, who attributed the significant increase to the work of VHV who went and found pregnant women and encouraged them to visit ANC. The incidence of low birth weight (<2500 gm.) is also close to the national report in the current year, which slightly higher than in 2017. Health executives suggested that this might be due to the COVID-19 pandemic, which reduced beneficaries' incomes and increased rates of unemployment.

The findings on the percentage of infants under 6 months of age who are exclusively breastfed is 29.9 per cent, which is much lower than the figure in the HDC national report, but close to that found in the MICS6 survey in 2019, which reported that about 14 per cent of infants were exclusively breastfed during the first 6 months. This finding was confirmed in this study by asking about the food and drink that infants had received during the past day, where it was found that 66.7 per cent of infants under 6 months of age had received breastmilk as the predominant source of nourishment.

Owing to limitations due to the COVID-19 pandemic, the evaluation team could not assess children's nutritional status and development on site, so data from the children's Pink Book was used. Analysis of this data found that the prevalence of stunting and wasting were close to those in the 2021 HDC national report, however, prevalence of obese children in the study was found to be much higher than in the national report.

Figure 4 *Comparison of evaluation survey outcome data and HDC data**



* Source: Health Data Center (HDC), https://hdcservice.moph.go.th/hdc/main/index.php, accessed 3 October 2021.

Two outcomes in First 1,000 Days programme implementation sites – first ANC visit during 12 weeks of gestation and stunting rates in children aged 0-2 years – were better than in sites where the programme has not yet been implemented.

Based on this comparison, there seems to be no significant difference in work practices beween those sites where the programme has not yet been implemented. However, two outcomes in First 1,000 Days programme implementation sites (first ANC visit during 12 weeks of gestation and stunting in children aged 0-2 years) were better than in sites where the programme has not yet been implemented.

To what extent has the programme raised the level of services?

The programme attempted to raise the level of care in ANC and WCC by providing more activities for beneficiaries than previously offered before the programme launched. However, this survey revealed that many beneficiaries did not receive care as planned at ANC and WCC as detailed before. The results were reported from the targets. It cannot be concluded that the officers did not provide care as planned. However, encouraging officers to emphasize these services in relation to targets can help to improve the programme.

The programme planned to raise the level of services through the following: 1) For pregnant women, teaching and demonstrations on plotting a growth curve on a graph, practices on food planning and preparation, teeth brushing, prescription of progesterone for preterm prevention, and encouragement of pregnant women to improve health literacy; and 2) For childcarers, teaching and demonstration on plotting the growth chart, practice on food planning and preparation, teeth brushing, use of the DSPM, reading books and stories to the child, improvement of health literacy, and risk assessment of the child for dental cavities.~~3)~~

At ANC visits, 17.19% of pregnant women were taught graphs, and 12.5% were trained in meal preparation for pregnant women. During WCC services, 49.4% of the respondents were trained on how to plot the growth of their children on a graph, although they did not have an opportunity to practice plotting the graph themselves. Also, 27.9% were trained in preparing proper meals for children, and 11.7% had attended practice sessions to prepare children's meals.

During ANC visits, it was found that 17.19 per cent of pregnant women were taught plotting on a graph (although 6.25 per cent did not plot a graph themselves due to lack of time), 28.13 per cent were taught about the diet for pregnant women, and 12.5 per cent were trained in meal preparation for pregnant women. Of the 18 women who were taught food preparation, 7 provided meals as part of the training, while 4 did not prepare any meals as part of the training. The reasons for not preparing food were that they were afraid to go out due to COVID-19. Other reasons given included no time, living in a dormitory making it difficult to cook, inconvenience, sickness, and loss of appetite.

As part of WCC services, 49.4 per cent of respondents were trained on how to plot the growth of their children on a graph, although they did not have an opportunity to practice plotting the graph themselves. Reasons given for this included tight business schedules (5), forgetfulness (2) and lack of necessary equipment (1). A total of 27.9 per cent of the respondents were trained in preparing proper meals for children, and 11.7 per cent of the respondents attended practice sessions to prepare children's meals. However, only seven respondents of both groups revealed that they had practiced preparing meals for their children every day. Others cited having to work and grandparents preparing food for children as reasons for not preparing meals for their babies every day.

To what extent has the programme raised the level of community/local and network participation?

Engagement with local community organizations and networks was found to be unsuccessful. Data from interviews with health executives found that engagement with local community organizations requires further encouragement. Subdistrict Administrative Organization (SAO) and Subdistrict Municipality (SM) officers said that they did not participate in this programme. Only HPH staff and VHV implemented it. Furthermore, beneficiaries stated that the SAO/SM did not organize any events and did not support them: "SAO/SM should support child growth and development, such as children's food, toys, etc." The beneficiaries also said that they needed playgrounds for children, and in some villages, they needed parks for pregnant women and children. There was no social mobilization in the community, other than on an individual basis, as in the case of one village head who provided some food and other things to children because he is a shop owner.

All directors of HPH said that the coordination between HPH and SAO/SM was carried out through official letters and personal dialogue, while communication to community leaders was conducted by personal dialogue and Line application. SAO/SM provided a budget from the Community Health Fund (CHF)[19] to support projects or activities of HPH, for example, a project for people to receive breast milk. Coordination between HPH and SAO/SM was mainly provided through a budget from CHF.

The programme's handbook indicates that PCU/district hospital/HPH should take the following roles at the sub-district level: 1) Organize child and family development teams at sub-district levels and in villages, comprising representatives from the public and private sector, community leaders, religious leaders, local scholars, VHV, and people living in the area. This team works as a civil society organization that plans and works together for the healthy height, weight and development of children aged 0-2 years. The team should also define roles, duties, and responsibilities; 2) Provide capacity building for team members about nutrition, physical activity, sleep, oral health care, child development, reading tales for children, water and food sanitation, and environmental health; 3) Develop programme/project/activities to drive the First 1,000 Days programme. Implement, monitor, and evaluate programme/project/activities, including analysis, synthesis, and improvement of the

[19] CHF is the funding initiated from the decentralization concept under the Thai health policy that followed the National Health Security Act (2002). CHF was set up by the National Health Security Office (NHSO), Ministry of Public Health, and Department of Local Administration, Ministry of Interior at the subdistrict level, emphasizing participatory process. CHF primarily aims to support health-related activities conducted by communities and organizations based on community demand and readiness. CHF can be used for health promotion, prevention, rehabilitation, and proactive primary healthcare.

programme/project/activities; 4) Maintain a register of all pregnant and lactating women, children aged 0-5 months, 6-11 months, and 1-2 years in each village and update the register every three months; and 5) Develop geo-social mapping, which identifies the target audience and responsible VHV. Data from interviews with HPH officers reported that there were child and family development teams in all sub-districts, in which the mayor/Chief Executive of the LGA was the chairperson. HPH officers were mainly responsible for activities, together with VHV. Before the COVID-19 pandemic, they implemented projects/activities for beneficiaries. However, during the COVID-19 pandemic, they were not able to implement any activities in the community. Furthermore, although they implemented, monitored, and evaluated project/activities and improved the project/activities as the programme handbook indicates, they did not conduct a situation analysis at the individual level.

This study was performed under the limitation that only eight sub-district in four provinces were included in the survey sample. Among these sub-districts, the data showed community/local and network participation through child and family development teams at sub-district levels. However, HPH officers were primarily responsible for conducting projects/activities for beneficiaries .

Among the eight sub-districts in four provinces included in the survey sample, the data showed community/local and network participation by child and family development teams; however, HPH officers were primarily responsible for conducting projects/activities for beneficiaries.

From the programme system and mechanism shown in Figure 2, each level needs to analyze child nutrition and development at an individual level for appropriate intervention measures to be taken. The problem of malnutrition and delayed development of children is complicated and requires collaboration from many organizations. MCH board members, provincial early childhood development subcommittees, and district health board members are the most relevant organization officers. These boards and the subcommittee can implement actions to support the nutrition and healthy development of children. The problems of malnutrition and under-development of children should be included in work plans and reported at meetings.

3.3.3 Question: How and to what extent were the innovative aspects of the First 1,000 Days accommodated by the existing programme?

To what extent did pregnant women, parents, carers, staff understand the DSPM for monitoring child development, nutritional status assessment, child development standards and the First 1,000 Days programme as a whole?

Most caregivers (82.5 per cent) had a copy of the DSPM. Of these, 34.6 per cent stated that they had a very good understanding, 47.2 per cent said they had some understanding, while 15.7 per cent indicated that they had never read/understood its use or only skimmed over it. In addition, 42.5 per cent of the caregivers used the manual monthly, while 20.5 per cent had never used it. Few pregnant women and carers receive training on nutritional status assessment at ANC/WCC. More than 90 per cent of beneficiaries did not know about the First 1,000 Days programme.

82.5% of caregivers had a copy of the DSPM. Of these, 34.6% stated that they had a very good understanding of the manual, while 42.5% of the caregivers used the manual monthly, and 20.5% had never used it.

All VHV and health officers said they understood the DSPM, nutritional status assessment, and child development standards quite well. An understanding of the First 1,000 Days programme as a whole was reported by officers in HPH, in District Health Office, in Provincial Health Office, and in Regional Health Promotion Center Offices. In contrast to hospital staff, some ANC and WCC officers in district and provincial hospitals said they had heard about the First 1,000 Days programme from news on the hospital board, and a few respondents had a meeting about the programme.

However, the evaluation team identified several training needs from interviews with clinic staff. The three most highly ranked topics classified out of scores of 5 comprised: 1) interpreting pregnant women's nutritional status using the pregnancy curve (4.00±1.19); 2) explaining pregnant women's nutritional status (3.94±1.13); and 3) use of the DSPM to monitor child development (3.91±1.25). They also needed to know more about the First 1,000 Days programme (3.88±0.49). Also, while they recognized the importance of the programme results, they felt that additional nutrition and child development training was essential to improve their understanding of the programme objectives and capacity to implement activities.

To what extent did the First 1,000 Days programme result in additional burdens on workload, administration, facilities and equipment, and how were these accommodated?

To what extent did staff have the capacity to implement the programme, including reporting.

As described previously (see section 3.2.1), ANC/WCC staff said they had worked similarly to before the programme was initiated. Therefore, there were no additional burdens on workload, administration, facilities or equipment.

The executives said that staff could implement the programme, including reporting. Implementation was discussed in the MCH board meeting and sometimes supervised on site. In MCH board and DHB meetings, data from the HDC report was discussed. However, we found that the HDC-reported EBF rate was much higher than the rates found in both this study and the 2019 MICS survey conducted by the NSO and UNICEF Thailand. Therefore, data collection and reports on the EBF rate should be revised.

We found that the Health Data Center (HDC) reported an EBF rate much higher than the rates found in this study and the 2019 MICS survey conducted by NSO and UNICEF Thailand. Therefore, data collection and reports on the EBF rate should be revised

3.3.4 Question: What have been the main achievements of the programme to date and what challenges have been encountered?

What challenges to the achievement of the programme's objectives have been encountered in the course of implementation, and how have they been addressed?

The main challenge to achieving the programme's objectives was the low level of local government participation. This meant that beneficiaries were unable to receive planned support from the local government, such as provision of milk, eggs and child care items, as well as support to encourage changes to child-caring practices, especially around food, oral health care and child development. The main challenge faced by dental care was the provision of oral health services, which require improvement and which only some beneficiaries were able to access.

Challenges faced by ANC/WCC included that only about half of beneficiaries received advice, while only a small number received demonstrations and practice in the clinics. Most of the challenges relating to ANC/WCC were about food consumption and nutritional status. Beneficiaries received advice from nutritionists only in the hospital, and only in some cases. According to the World Health Organization (WHO, 2017), Thailand had a nutrition professionals density of 5.8 (per 100,000 population). Comparatively, the nutrition professionals density in Indonesia and Australia were 16.7 and 27.5 (per 100,000 population)[20], respectively. Compared to those two countries, Thailand needs to increase the number of nutrition professionals.

Inspiring beneficiaries to change their eating practices requires time and effort. ANC/WCC officers stated that the priority needs for training were around food and nutrition, especially encouraging good eating practices for children aged 0-24 months, which is an essential time for healthy brain development and growth. Many problems relating to eating practices were identified, for example, the influence of relatives and food accessibility. Food advice or practical training at clinics is not enough to address these issues. Sustained support is essential for beneficiaries to change bad habits related to food and nutrition. For example, one pregnant woman interviewed stated "I would like to know which food does not make me bloated". Nutrition counselling is one strategy that can assist, which highlights the need for more nutritionists who can provide counselling to guide and support the changing behaviours of beneficiaries.

There were many problems identified around eating practices, including the influence of relatives and food accessibility. Support for beneficiaries to solve their problems related to food and nutrition is necessary, including more nutrition professionals to provide counselling.

Child development is also a challenge and improvement is needed. It was found that not many households had books for children, and most childcarers did not tell stories to children. Additionally, presently, electronic devices are important for daily life, and many childcarers thought that such devices could improve child development.

The COVID-19 pandemic has presented the most challenges to beneficiaries' receipt of care from health staff. Some postnatal women did not visit clinics due to fear of COVID-19 infection from busy staff who were also

[20]WHO. Global Nutrition Monitoring Framework Country Profile: Thailand. https://www.who.int/data/nutrition/nlis/gnmf . Accessed 12 March 2022.

working on activities related to the pandemic. Parents were also reluctant to bring their children to clinics for regular check-ups for fear of infection. As a solution, health staff contacted beneficiaries using the Line social media application. Applications produced by the DOH related to care of mothers and children during pregnancy and after childbirth were also used, although the survey results showed that only a few beneficiaries used those applications. Beneficiaries mostly got their information from websites and health staff.

3.3.5 Question: What have been the programme's main achievements to date, and what are the key factors that have contributed to successful implementation?

The main achievements to date are the coverage of the programme, achieving coverage of all provinces as planned and in additional sub-districts. No significant changes were found in the output and outcome, perhaps due to the impact of the COVID-19 pandemic in Thailand from 2020 onwards. However, this programme has resulted in changes to the attitudes and the interests of public health officers. They had increased recognition of the various linkages and importance of the target groups during first 1,000 days of life, and the indicators made officers more eager to do their work. The programme has suitable approaches, has improved some processes and activities, and will contribute to more successful implementation.

The recognition of public health officers was also reported by regional executives. One executive said that "It is the main policy, and there is no problem in implementing the project. It is already a duty. The most obvious successful indicator of implementation is that all staff recognize the importance of the programme." At the provincial level, managers described the main achievements as "All sectors are more focused on the mother and child. Other agencies and managers view the issue [of the growth and development of children during the first 1,000 days] with more importance, and it is being talked about in the public arena." They added: "The programme has been successful in regard to monitoring indicators. At WCC clinics, they follow up with children who have development delay, and now 100% of children are reaching appropriate development levels".

> *"All sectors are more focused on the mother and child. Other agencies and managers view the issue [of the growth and development of children during the first 1,000 days] with more importance, and it is being talked about in the public arena."*

The increased recognition of the programme was also reported at the sub-district level. All health staff at the district level were said to be: "Communicating in the area, providing information on the programme's purpose and how local government can be involved. All sectors are aware of this beneficial policy, which aims to produce a healthier population."

3.4 INCLUSIVENESS

Question: How successfully has the programme included equity and gender equality, and reached the most vulnerable and 56marginalized people in the community (including elderly carers, women with disability, migrants and mobile populations, ethnic minority groups and stateless people)?

3.4.1 To what extent are the vulnerable and 56marginalized people in the community receiving the intervention?

Based on the small sample, it is difficult to generalize about the access of marginalized or vulnerable people to ANC and WCC services provided under the First 1,000 Days programme. The information compiled indicates that foreign nationals do have access to the services, and it appears that foreign nationals receive the same services as Thai citizens. This includes support from VHVs, as well as clinical services, such as ANC and childbirth facilities.

The language barrier might limit understanding of the information provided by staff, and also cost might be an obstacle, since foreign nationals are not covered by the Universal Health Coverage scheme. Only a few vulnerable and marginalized people in the communities were sampled. In the course of data collection, the evaluation team found one Laotian and one Cambodian woman who had small children, and one Laotian who was five months pregnant. The Cambodian mother could speak Thai quite well, and the Laotian mother could speak only some Thai. Neither person could read the Thai language.

The language barrier might limit understanding of the information provided by staff, and also cost might be an obstacle for foreign nationals. One Cambodian mother interviewed could speak Thai quite well, while another interview (a Laotian mother) could speak only some Thai. Neither person could read the Thai language.

For the Laotian mother, her husband and his relatives took care of her and provided advice for caring for the baby, which was her first child. Delivery had been by caesarean section. Her husband's relatives advised her not to eat eggs and seafood, saying that it would prevent healing of the incision. She could not afford to buy milk for herself, so a VHV requested milk from the school to give her. Her nipples were short, which made breastfeeding difficult. The recommendation from the health staff was more frequent breastfeeding, but she suffered more pain. The VHV obtained an electrical breastmilk pump from someone else who was not using it anymore, which enabled her to give breastmilk to her child.

The Cambodian mother interviewed said that she received good care from health officers and also the VHV, who called or visited her house and took her to a clinic for regular check-ups.

Another Laotian was pregnant with her second child. She could read some Thai language. This interviewee requested some support, such as milk and items used for child care, as well as access to Universal Health Coverage like Thai people for free health services.

There were reports about a few other vulnerable and 57arginalized people in the community, however, those people had children aged over 2 years, so were not included in the study.

When asked about the family members who encourage breastfeeding, it found that most husbands support the breastfeeding of postnatal women.

3.4.2 Are vulnerable and 57marginalized people in the community receiving the intervention in the same way as others? And,

3.4.3 What support is provided to enable people with disability and migrants to access ANC/WCC services?

Owing to the limited sample size of the evaluation, no people with disability were identified as informants. However, despite the travel constraints due to COVID-19, which limited provincial visits, the evaluation team was able to make some observations of facilities provided at hospitals with assistance from health staff in the study sites. It was found that all hospitals were equipped with wheelchair ramps and signs to aid people with disabilities. One hospital had equipment for the blind, an interpreter, and a bathroom equipped for people with disability. Six hospitals had signs in other languages for foreign workers.

All hospitals were equipped with wheelchair ramps and signs to aid people with disabilities. One hospital had equipment for the blind, an interpreter, and a bathroom equipped for people with disability.

3.5 EFFICIENCY

Question: To what extent was the programme implemented in the most cost-effective way possible, as compared to feasible alternatives?

3.5.1 How efficient were the management structures?

The management structures were found to be efficient. However, the management structures were similar to those in place before the programme launched. The structures outlined certain activities that were directed in order to achieve the goals of an organization. These activities included rules, roles and responsibilities. The executive responsibilities include making major corporate decisions, managing the overall operations and resources, and acting as the main point of communication between the higher executives and corporate operations. Public health officers reported that they were satisfied with their work and the executives.

The management structures provided information flows between levels within the MOPH. Decisions and information sharing were conducted both through a centralized structure, where decisions flow from the top down, and a decentralized structure, with decision-making power distributed among various levels of the organization. The programme is a policy of MOPH; the system and mechanism of the programme are shown in Figure 2,. All the executives and technical officers said they worked under the MCH board at the provincial level and the district health board at district level. They reported being satisfied with this programme as an important policy working towards a significant target group.

Public health officers reported that they were satisfied with their work and the executives. Decisions were made both through a centralized structure, with decisions flowing from the top down, and a decentralized structure, with decision-making power distributed among various levels.

3.5.2 Was the programme budget appropriate in terms of intended outcomes?

In this evaluation, we found that ANC/WCC staff were doing the same things as before, and both staff and beneficiaries commented that there was too little time available for longer appointments and provision of more detailed advice to mothers and carers. So the question should be raised about whether an increased budget would enable the hiring of more staff, which would reduce the burden on staff and allow time for increasing the quality of services. Similarly, at the community level, the point needs to be made much more clearly that funds are available from the budgets of local government or other agencies that would enable support for food supplements (e.g. milk boxes), the building of children's playgrounds, or setting up community libraries, for example. That is one of the reasons for increased collaboration with other government agencies or funding agencies.

At community level, groups need to be aware that funds are available to enable support for food supplements (e.g. milk boxes), the building of children's playgrounds, or setting up community libraries, for example. That is one of the reasons for increased collaboration with other government agencies or funding agencies.

3.5.3 Can programme outcomes be demonstrated through monitoring data and reporting?

Programme outcomes are demonstrated and reported in HDC. All executives and technical officers monitored progress. However, the problem is that not all children had been assessed in terms of both growth and development, therefore the programme outcome report might not be entirely suitable for the monitoring programme.

The early years of the life of children are regarded as a golden period of opportunity. If an infant's health is impaired in the early years, it will usually result in lifelong effects. Thus, infants' growth should be monitored to detect and modify any deviations from the appropriate growth standard. Growth refers to specific body changes and increases in the child's size, including height, weight, and head circumference. Growth monitoring determines the desirability of infants' growth and allows the early detection of growth disorders. Various factors can result in the deviation from the desirable growth. The most important factor is nutrition, which provides the necessary energy for different activities and helps the body to avoid diseases. It can also prevent or reduce the intensity of the prevalence of chronic diseases. In this regard, there are some concerns about low weight gain, obesity, essential nutrient deficiency, and poor dietary variety.

Data from HDC reported healthy height and weight of children aged 0-2 years old every three months. The growth of all children should be assessed. However, the 2021 report from HDC found that about 75.18 per cent of children were assessed. Also regarding optimal development from the HDC report, 84.87 per cent of children were assessed. The optimal development was measured and reported for children aged 9, 18, 30, 42 and 60 months.

HDC reported that the nutritional status of 75.18% of children was assessed, while 84.87 % of children were assessed in terms of development.

This evaluation found differences in EBF rate according to HDC and the survey. EBF reported in HDC was much higher than this study and the MICS6 survey. At the same time, health staff had used this report for monitoring and planning. This may be due to some misunderstanding of the questions by caregivers or the tools used for data collection.

3.5.4 Are there any aspects of the programme that could have been achieved more effectively by other more cost or time-effective means?

The two aspects of the programme that could have been achieved more effectively by more cost or time-effective means are: (1) encouraging community participation and ownership; and (2) developing guidelines and checklists for VHV home visits.

In terms of encouraging community participation and ownership, data from IDI executive and technical officers found that local government were interested in the programme, but only supported from a distance, for example “It is the duty of HPH; I will support [the programme] if they ask”. Most VHV said that local government supported the target group activities. If local governments are encouraged to take more ownership over the First 1,000 Days programme, they are more likely to provide more budget and staff for the programme with HPH or health office support.

Developing guidelines and checklists for home visits by health care providers and VHV would help to make home visits more efficient. Teaching VHV to advise target groups is not achievable as a VHV have many jobs. However, if guidelines and checklists were developed, along with communication skills for a home visit, which might be online or paper-based, VHV are more likely to be able to measure beneficiaries’ progress, and if any problems are identified, report the issue quickly. For example, VHV will ask the beneficiaries about knowledge and provide advice if the beneficiaries cannot answer, or ask about child care practices and advise if anything inappropriate is mentioned. The guideline and checklist could be provided as public health informatics, which would ensure both learning of the beneficiaries and surveillance data for the programme.

Public health informatics are at the intersection of information, health and technology. As many paper-based tools transition to technology, there are more efficient ways to collect, display and study data from tools such as food/nutrient analysis tables, electronic health records (EHRs) and mobile apps. Public health informatics allows health professionals, through the support of technology, to more effectively use their knowledge and skills whether collecting data to document outcomes, for decision support or streamlining workflow.

Online advice is also more effective with less cost, but this can increase the workload among officials. Nowadays, there are many applications available about pregnancy and child care. From the quantitative study, we found that most of the information beneficiaries receive is from websites. However, some caregivers, especially grandparents, could not access the internet. In developing an application, one should carefully research and study the beneficiaries' needs.

Online advice is more effective with less cost, but some caregivers, especially grandparents, could not access the internet.

3.6 SUSTAINABILITY

3.6.1 Question: What is the likelihood of the benefits being sustained after completion of the programme?

How likely is it that relationships and cooperation between stakeholders will be maintained after completion of the programme?

The evaluation team found no evidence that the programme made any significant change or improvement in the relationships and cooperation between MOPH officers and other ministries. However, the programme did result in increased awareness of HPH officers in caring for mothers and children during the first 1,000 days of life, and encouraged them to put effort into achieving the outcomes under the programme indicators. Coordination between HPH officers and local government was similar to what had existed before the programme launched. HPH developed the project and requested some support from local government such as inform target group participated in the project at community. The evaluation did not find any plan or project developed in a participatory way. Some local government officers reported that they had never heard about the programme. Communication with local government was conducted via official letters and informal means such as Line, phone conversations, and some meetings. These communication methods did not help to spread awareness about the programme. However, some HPH officers contacted local government by themselves, resulting in some increased awareness among local government officials. These efforts will increase future possibilities for stronger relationships and cooperation between stakeholders.

HPH officers contacted local government by themselves, resulting in some increased awareness among local government officials. These factors will increase the future possibilities for stronger relationships and cooperation between stakeholders.

Is there local ownership of the programme, and will staff be motivated to maintain services at the same level after completion of the programme?

No evidence of local ownership of the programme was found from this study. There were no mentions of the programme in the policies, or committee minutes related to annual sub-district plans. However, interviews with local organization officers found that they were willing to participate in the programme. The evaluation team stated that, with support, they would be able to incorporate community level activities from the First 1,000 Days programme into annual sub-district plans.

Local ownership can be developed through the following approaches:

- Involving community people/community leaders in the idea generation and planning phases of the programme
- Identifying the felt needs and real needs of the community and acting accordingly
- Appreciating and prioritizing the community culture, values and beliefs
- Conducting regular stakeholder meetings and discussions
- Providing community members with opportunities for leadership roles
- Mobilizing local resources for the programme
- Encouraging community members to actively participate in monitoring and evaluation of the programme

From the survey, these approaches are not yet found in the implementation, and the programme should put increased effort into using these approaches for building local ownership in communities and within local governments.

The study did not find any approaches leading to the development of local ownership in communities and local governments.

3.6.2 What sort of continued support is necessary in order to ensure that services are maintained at the same level after completion of the programme?

Will provision need to made for on-going training or capacity building of staff?

Capacity building among ANC/WCC officers was still needed. However, all executives said that no support was needed from the programme for capacity building, as this was undertaken as a regular part of the programme, except during the COVID-19 pandemic. Additionally, there was a budget for health officers who desired to undergo some training.

However, from interviews with clinic staff, the evaluation team identified several training needs. The three most highly ranked topics classified out of scores of 5 comprised: 1) interpreting pregnant women's nutritional status using the pregnancy curve (4.00±1.19); 2) explaining pregnant women's nutritional status (3.94±1.13); and 3) use of the DSPM Manual to monitor child development (3.91±1.25). Clinic staff also needed to know more about the First 1,000 Days programme (3.88±0.49). Also, while they recognized the importance of the programme results, they felt that additional nutrition and child development training was essential to improve their understanding of the programme objectives and capacity to implement activities.

As well as more information about the First 1,000 Days programme, the three topics that most health officers and VHV needed more training in were: 1) interpreting pregnant women's nutritional status using the pregnancy curve; 2) explaining pregnant women's nutritional status; and 3) use of the DSPM to monitor child development.

What other resources would be required in order to maintain services?

All managers, MOPH technical officers, clinical staff, and VHV reported that they did not need any additional resources except the instruments and media used in the clinics, such as the food group and teeth models. However, there was a need for books for children. Most service providers and beneficiaries report that the media available in clinics was too old. A service provider said that "I need a flipchart for teaching as it is easy for teaching targets, and beneficiaries can view the targets while waiting".

The resources required for maintaining services include facilities, internal learning, and customers. The study found that facilities for marginalized people are limited, as stated before. Officers used budget for internal learning needs. However, officers stated that they had more training needs, especially on nutrition, development, and the First 1,000 Days programme itself. Meanwhile, officers use the budget for health promotion and prevention (PP) under Universal Health Coverage if required for some activities relating to caring for beneficiaries.

Health officers have more training needs, especially on nutrition, development, and programme itself. ***For media support, a*** *service provider said, "I need a flipchart for teaching as it is easy for teaching targets, and beneficiaries can view the targets while waiting."*

Should any changes be made in management or at the policy level to ensure services continue to meet the required standards of care?

All MOPH staff interviewed agreed with the programme management system and policies. Most service providers said that the programme should maintain existing policies to ensure that operations in all areas are aligned with clear indicators.

The programme should maintain existing policies to ensure that operations in all areas are aligned with clear indicators. Strengthening coordination with MOI is needed to help local government understand better the importance of prioritizing the health of mothers and children.

Most health managers said that the existing policies should be continued: "The distribution of work between agencies is clear, as is the importance of implementing the project. However, currently, coordination with local government is needed to help them understand better the importance of the health of mothers and children. At present it might not be as beneficial as it should be."

In summary, health staff at all levels who were interviewed agreed with the current programme policy, and said that it should be continued.

4. CONCLUSIONS AND LESSONS LEARNED

This section of the report summarizes key findings and conclusions of the the First 1,000 Days programme in Thailand. Building on the findings, this section draws together and integrates conclusions based on those findings.

Relevance

The programme is relevant and aligned to the MCH context in Thailand and the needs of beneficiaries. The objectives of the intervention are relevant to the goals of the National Strategy (2018-2037) and the 20-Year National Strategic Plan for Public Health of MOPH (2017-2036) in building and strengthening the capacity of women and children in early childhood.

The programme activities, especially key activities such as encouragement of ANC visits before 12 weeks of gestation, and provision of knowledge, especially on nutrition and child development, are appropriate to the needs of the target population.

The programme does not have a theory of change (TOC). Although the programme developed a logical framework, which explained indicators at each programme level (goals, purposes, and output), a logical framework is a rigid and strict means of showing outputs achieved in a very short period of time. Therefore, there is a great necessity to replace the logical framework with a TOC, which is more flexible and less prescriptive. There is a need for a ToC in order to understand how the intervention produces effects on the wider system, and to place broad stakeholder engagement at the outset to maximise the chances of the intervention's success and community ownership. However, from the details provided of the interventions that have taken place so far, it can be seen that the programme is based on the assumption that increasing the quality of care provided by health services and the community, including providing knowledge, demonstrations and practice for the beneficiaries at each stage, will result in changes in practices and achieve the desired outcome of healthy height and weight and optimum development of children.

Another intervention that should be considered is increasing food accessibility for the target group, especially during COVID-19 pandemic. Although parents and other caregivers are most directly responsible for the feeding and caring of children and are keen to ensure that they have accurate information to make appropriate feeding choices, they are nevertheless limited by their immediate environment. It is not unusual for caregivers to be more influenced by household attitudes than by the advice of health workers.

To further improve the relevance of activities, strengthening coordination with local government is needed to enhance the ownership of the programme at the local and community level.

Coherence

The programme scope and design are compatible with other interventions. It is consistent with the recent work of public health officers under the national programme, particularly promoting exclusive breastfeeding, food, oral health care and child development.

The evaluation team found little evidence that the programme facilitated synergies with interventions and strategies promoted by other government ministries in Thailand. Based on data collection from four provinces around Thailand, the evaluation found that the work of MSDHS and MOI on children is mostly implemented in daycare centres and schools, where most children are over 2 years old.

Under the Child Support Grant scheme, parents of newborns up to the age of 6 receive a government payment of 600 baht per month as part of measures introduced by the government to support newborn childcare. All mothers interviewed were satisfied with this support and said that it had helped them to provide more child care.

Effectiveness

The programme approach and model of implementation are appropriate regarding achievement of the expected objectives and results. Findings showed that beneficiaries were highly satisfied with the activities provided by ANC and WCC service providers. However, providing knowledge to grandparents is also essential as they often live within the household and have influence over child care practices. Moreover, more encouragement should be given to home visits by VHV or HPH officers, performed with more guidelines, communication skills and checklists, in order to effectively monitor the knowledge and practice of beneficiaries, instead of simply providing advice.

The programme outcome is not obviously shown in both healthy height and weight and optimal development in children aged 0-2 years. About half of pregnant and postnatal women consumed milk and egg every day and used iodized salt in the household. A total of 29.9 per cent of postnatal women reported exclusive breastfeeding, while 30 per cent had breastfeeding problems. In addition, 36.8 per cent of infants aged less than 1 month consumed other foods, 11.5 per cent and 25.3 per cent of which received drinking water and powdered milk, respectively.

A total of 44.8 per cent of childcarers reported that they did not have story or picture books at home, and 57.1 per cent said they have never read or verbally shared any tales or stories with the children. Forty-four per cent of childcarers had used electronic devices with children. Oral health was another activity that was only partially implemented. Only 55.2 per cent of children had received oral health check-ups in the past year.

Improvement in the quality of ANC/WCC according to the entitlement package for pregnant women (270 days), infants aged 0-6 months (180 days), and infants aged 6 months–2 years (550 days) was not shown clearly in the evidence from the evaluation. Most ANC and WCC staff still worked the same way as they did before the programme was launched. The most significant finding was the increase in awareness of the service providers of MCH care during the first 1,000 days of life, which encouraged service providers put more effort into working to achieve the programme indicator.

There were no significant differences in work practices and outcomes within the First 1,000 Days programme implementation sites compared to the situation before the commencement of the programme. However, the percentage of pregnant women who visited ANC before 12 weeks of gestation was more than before the commencement of the programme, due to the efforts of VHV who worked diligently to find pregnant women and encouraged them to visit ANC.

The programme did not significantly raise the level of services. ANC/WCC staff received training related to the First 1,000 Days Programme from Regional Health Promotion Centers. However, they still require further training on nutrition and child development.

There was no evidence that the programme raised the level of community/local and network participation. However, local government staff said that they were willing to participate in the programme. This highlights an opportunity for the programme to encourage local government ownership; this can be achieved by supporting planning, starting from needs assessment, planning and evaluation.

Most staff and beneficiaries interviewed stated that they understand the DSPM quite well, as it is detailed and easy to read and practice. However, both staff and beneficiaries said that they needed more nutrition training. Moreover, staff would like more training on the First 1,000 Days programme as a whole.

The First 1,000 Days programme did not appear to result in additional burdens on workload, administration, facilities or equipment. Support was only needed to replace old equipment and some media, such as food and tooth models used in training.

The main challenge to achievement of the programme's objectives encountered in the course of implementation was the lack of encouragement of programme ownership by local government. Efforts by executives to involve non-health personnel, especially relating to policy at province, district, and sub-district level, had some success, as they enabled MOI staff to understand the importance of the programme, and make them eager to support the programme.

Another challenge to the achievement of the programme was the COVID-19 pandemic. The pandemic increased the workload of officers, resulting in less time for their regular duties, as well as the implementation of additional programme activities. Moreover, the economic impact of the pandemic increased the financial hardships faced by beneficiaries, and concerns around infection reduced their visits to clinics, as well as home visits by health personnel. Health officers solved the problem, in part, by providing online advice and monitoring through social media, such as the Line application.

Inclusiveness

While there were limitations on sample size, from the data obtained, it appears that the programme has been successful in reaching the most vulnerable and marginalized people in the community (including elderly carers, women with disability, migrants and mobile populations, ethnic minority groups, and stateless people). VHV perform their duty in the community to identify vulnerable and marginalized groups, and take close care of those people. However, language barriers might be a problem in the provision of knowledge and practice. For this reason, health officers should try and provide knowledge to close friends, husband's family or others who have good command of the Thai language and can support the beneficiary to access services.

Efficiency

The management structures were found to be efficient. However, the management structures were similar to those in place before the programme launched. The structures outlined certain activities that were directed in order to achieve the goals of an organization. These activities included rules, roles and responsibilities. The

executive responsibilities include making major corporate decisions, managing the overall operations and resources, and acting as the main point of communication between the higher executives and corporate operations. Public health officers reported that they were satisfied with their work and the executives.

The two aspects of the programme that could have been achieved more effectively by more cost or time-effective means are: (1) encouraging community participation and ownership; and (2) developing guidelines and checklists for VHV home visits.

Sustainability

The sustainability of initiatives should be central to the design of the First 1,000 Days Programme. The DOH has the potential to guide coordinated efforts, which can have longer-lasting results if guided by an overall strategy. This can have a ripple effect among partners as well.

Although the programme integrates technical assistance as an important approach to achieving results, more focus is needed on learning by doing and generating local ownership. There is a consensus that capacity building is a key area for sustainability and is an important area for the future and should be viewed as a core aspect of future programming systems building to ensure succession planning.

LESSONS LEARNED

The evaluation identified the following lessons learned from the programme intervention:

1. The programme created change through building partnerships. This highlights the importance and value of partnership and coordination among agencies and partners, encourages partnership to become a reality, and increases the likelihood of more joint activities. Leadership is essential for building partnerships which lead to change.

2. Activities implemented at the local levels within a country need to be integrated into national plans and local stakeholders should have the opportunity to participate, be empowered, and gain access to relevant lessons learned.

3. VHVs are essential for the success of the programme as they work closely with the beneficiaries. However, knowledge or training provision alone cannot make the programme successful. Additional support for VHVs is required, such as developing guides for monitoring and capacity building, in order to focus VHV home visits and increase the benefit for target groups.

4. To move forward with a national-level undertaking, all the levels need to be working together to achieve all the outcomes successfully.

5. RECOMMENDATIONS

Relevance

1. Government to improve programme design, an evidence-based Social and Behaviour Change communication strategy is needed to guide the design of interventions, establish intended audiences, set behavioural communication objectives, and determine consistent messages, materials, and activities across channels to communicate with and reach caregivers, their extended family, and the wider community.

Coherence

2. Coordination with local government needs to be strengthened by the MOPH's executive at all levels to enhance ownership of the programme at the local and community level and ensure that the programme is relevant to the needs of the beneficiaries.

3. The MOPH's executive at all levels should put more effort into coordinating with other ministries, including the MOI, MOE, MSDHS, Ministry of Labour, and the Ministry of Agriculture and Cooperatives. Furthermore, ministries should coordinate to develop an assessement plan and monitoring indicators to ensure that beneficiaries' needs are met.

Effectiveness

4. For optimal learning outcomes, the time allocated for advice should be about 15-30 minutes; if longer than this, people find it difficult to understand and remember what has been said. Therefore, the programme should prioritize the allocation of time for activities in clinics and encourage the use of other modalities, such as the greater use of home visits, to provide advice and monitor the progress of gestation.
5. The DOH should take the main role in developing an application software for home visit programme of health care providers and VHV to: 1) provide knowledge, encourage and support to beneficiaries; 2) monitor the behaviour of beneficiaries and caregivers (including grandparents in the household) in relation to nutrition, play, storytelling, and oral care. This application should be transferred to HPH and other MOPH levels to monitor and supervise.

6. DOH should take the main responsibility for developing guidelines/manuals/handbooks for the Regional Health Center and Provincial Health Office to train ANC/WCC staff, especially nutrition and child development.

7. There are many applications providing knowledge to beneficiaries developed by private or DOH. This evaluation found that they were hardly accessed. Therefore, DOH should perform the study of effective media for beneficiaries. Due to the different education and economic levels of beneficiaries, both electronic media and paper-based media should be explored. More online advice and monitoring through social media, such as the Line application, was needed during the COVID-19 pandemic; this experience presents opportunities for DOH to develop standard applications for duty bearers.

8. Few nutrition professionals participated in the programme because they worked only in hospitals and regional health promotion centers. The office of the Permanent Secretary, MOPH should encourage the hospital to have Nutrition professionals fill the position. DOH should provide guidelines for capacity building of HPH, VHV, or other volunteers to have nutrition ability, including assesement, counseling, training, monitoring, and evaluation.

9. To line ministries: The executive should coordinate with other ministries, officers or networks to reduce the economic impact of the COVID-19 pandemic on beneficiaries, which will increase the programme's success.

Inclusiveness

10. The DOH executive at the regional and provincial levels should support facilities to increase their provision of learning opportunities and improve practices relating to the inclusion of marginalized populations, such as providing a hard copy of the Pink Book and DSPM in other languages.

Sustainability

11. The DOH and Department of Local Administrative Promotion (DLA), MOI, should make greater use of the opportunities presented by the willingness of local governments to participate in the programme, creating ownership by local government through training planning support, starting from need assessments, work plans, and evaluation. Training and programme planning should initially be conducted by the Provincial Administrative Organization (PAO) until programme outcomes are reflected in the yearly plan.

12. There needs to be an increased focus from MOPH on capacity building for nutrition and child development, which are key areas for sustainability which form an important base upon which to build future programming systems to ensure succession planning.

ANNEX I TERMS OF REFERENCE

TERMS OF REFERENCE

COUNTRY-LED FORMATIVE EVALUATION OF THE FIRST 1,000 DAYS PROGRAMME

1. INTRODUCTION

To promote accountability and learning as well as evidence-based decision-making, the Department of Health of the Royal Thai Government's Ministry of Public Health, with support from UNICEF Thailand Country Office, is commissioning a country-led formative evaluation of the "First 1,000 Days" programme (referred to henceforth as the First 1,000 Days programme), a five-year programme implemented between 2018-2023 with the goal of health promotion and disease prevention in order to achieve the desired outcome that "Children aged 0-2 years have full potential height, optimal weight, and age-appropriate development."

These Terms of Reference (TOR) set out the purpose and objectives, scope, evaluation framework, methodological approach, and operational considerations to serve as guidelines for an institutional contract for a team of independent evaluation consultants to undertake the assignment. Findings from the evaluation will provide an assessment of implementation progress to date, assess the relevance, coherence, effectiveness, efficiency, sustainability, inclusiveness and impact of the programme, enable any important issues or gaps to be addressed, and contribute data to inform the next 5-year planning cycle of the Ministry of Public Health (MOPH).

The evaluation will be conducted between March–September 2020 over a total duration of 29 working weeks (83 working days). It will be managed by the Department of Health, with support from UNICEF Thailand Country Office, and overseen by an Evaluation Steering Committee under the Chair of the Department of Health, comprising key stakeholder representatives.

2. BACKGROUND AND DESCRIPTION OF OBJECT OF THE EVALUATION

Child growth and development is recognized as a major global health issue, with an impact on global development, as reflected in the UN's Sustainable Development Goals (SDGs). Accordingly, access to adequate nutrition, elimination of malnutrition and reduction of stunting are reflected in SDG Goal 2, reduction of maternal and neo-natal mortality is a goal of SDG 3, and Early Childhood Development (ECD) is included in target 4.2 of SDG Goal 4: "By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education." The World Health Assembly (WHA) set the following Global Nutrition Targets to be achieved by 2030:

- Stunting - 40% reduction in the number of children under the age of 5 who are stunted
- Overweight - No increase in childhood overweight
- Anaemia - 50% reduction in anaemia in women of reproductive age
- Breastfeeding - Increase in the rate of exclusive breastfeeding during the first 6 months up to at least 50%
- Low birth weight - 30% reduction in low birth weight
- Wasting - Reduce and maintain childhood wasting to less than 5% by 2030

Under the Royal Thai Government's 20-year National Strategic Plan (2018-2038) and the Strategic Plan of the Ministry of Public Health's Department of Health, the following goals were established to be reached by 2022:

- 64% of children aged 0-5 years have full potential height and optimal weight
- Average height of children at 2 years will be 92 cm for boys and 91 cm for girls
- Average height of children at 5 years will be 113 cm for boys and 112 cm for girls
- 85 % of children aged 0-5 years have age-appropriate development

In general, Thailand has shown good progress in meeting the WHA goals, and has exceeded them in several areas. However, in regard to other indicators, further efforts are needed to meet targets. According to the Multiple Indicator Cluster Survey (MICS) undertaken in 2015-16 by the National Statistical Office (NSO), with support from the National Health Security Office (NHSO) and UNICEF Thailand Country Office, the rate of low birthweight was 9.4%, the rate of exclusive breastfeeding in infants aged 0-6 months was 23.1%, the rate of moderate to severe stunting in children less than 5 years was 10.5%, and 8.2% of children under 5 years were overweight. In regard to nutrition, the survey found that only 49.6% of children 6-23 months had an acceptable diet, and 73.3% of households used iodized salt. In regard to factors influencing learning, the MICS survey found low rates in some key areas, such as the rate of involvement of fathers in provision of learning support to infants and the availability of children's books.

In order to address these issues and respond more effectively to the goals of the National Strategic Plan and World Health Assembly, the First 1,000 Days programme aims to contribute to the following specific health and social goals:

1) Good child growth and optimal development
2) Increase intelligence levels
3) Reduce the problem of sickness due to communicable diseases
4) Reduce infant mortality due to mal/undernutrition
5) Reduce chronic non-communicable disease (NCD) in adulthood

In its approach to achieving the above goals, the First 1,000 Days programme differs in some important ways from the previous antenatal care (ANC) and early childhood development (ECD) programme. In general, the approach has involved promotion of a more holistic approach to maternal health and child growth and development, with increased cooperation among relevant agencies, addressing specific nutritional and health issues, and increasing community involvement. As of 2018, the programme covers three main areas of service provision: i) improvement of the quality of ANC/WCC according to the entitlement package; ii) raising the level of services; and iii) raising the level of community/local and network participation for three target groups:pregnant women; infants 0-6 months; and infants aged 6 months-2 years. From 2019 to 2020, the programme aims to enhance the ownership of the programme at the local and community level and expand the coverage of the programme from one to two sub-districts in every province. The current programme includes the following:

1.1 A gap analysis of diet/food consumption; dispensing of iron-folic iodine tablets/iron supplements; oral health care; promotion of physical activity/play, sleep and development;

1.2 Development of the system and mechanism of health districts, provinces and districts, to close the gap;

1.3 Promotion of participation of network partners, especially the community;

1.4 Support for provision of milk and eggs to pregnant women, lactating women and children;

1.5 Food demonstrations for pregnant women, lactating women and children aged 6 months-2 years;

1.6 Practical training in food preparation for pregnant women, lactating women and children aged 6 months-2 years, including brushing teeth (hands on);
1.7 Practical training for pregnant women to interpret nutrition assessment results and trends of weight gain;
1.8 Practical training for parents/carers in interpretation of nutritional status assessment and trends in height and weight gain in children;
1.9 Use of the Development Promotion and Surveillance Manual (DSPM) for monitoring child development by parents/carers;
1.10 Increased involvement of hospital nutritionists in provision of nutritional services, such as assessment of food consumption behaviour and nutritional advice.

In terms of geographical coverage, the programme target was for implementation in at least one *tambon* (sub-district) in at least 90 per cent of districts of every province by 2019, and at least two sub-districts for every district by 2020. Full details of the rationale, activities and implementation strategy of the First 1,000 Days programme are presented in the manual "*Naew thang kan khap khluean mahasachan 1,000 wan raek khong chiwit*" published by the Department of Health.[21]

3. PURPOSE, OBJECTIVES AND SCOPE OF WORK

The First 1,000 Days programme has now been implemented for two years and it is considered timely to conduct a of review progress in implementation and the results achieved to date. The purpose of the evaluation is to assess the effectiveness of the First 1,000 Days programme, its coverage, the extent to which outputs correspond to targets that were set, identify any important gaps in the programme, and make recommendations for adjustments that will improve the programme. The evaluation will provide valuable information for a wide variety of stakeholders, including the Royal Thai Government and international agencies, such as UNICEF Thailand Country Office, but will be of particular benefit to the Senior Administrators in the Department of Health, the Women and Early Childhood Cluster of the Ministry of Public Health, and other concerned agencies such as the Ministry of Social Development and Human Security, local government administration and the Ministry of Interior.

The findings will enable the programme to be fine-tuned and any important issues or gaps to be addressed, as well as contributing data to inform the next national planning cycle. Specifically, the evaluation has three main objectives:

1. To assess to extent to which the First 1,000 Days programme can contribute to optimal growth and development of children in Thailand;
2. To identify the main achievements of the First 1,000 Days programme to date, the key challenges experienced and the key factors that have contributed to successful implementation;
3. To provide recommendations on how future programmeming may be improved, including approaches that could improve programme design, implementation, coordination and monitoring.

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[21] "*Naew thang kan khap khluean mahasachan 1,000 wan raek khong chiwit*", Department of Health, Ministry of Public Health 2018 (in Thai).

Stakeholders (duty bearers) include:

1. Health Regions
2. Health Promotion Centers (DOH)
3. Provincial Health Offices
4. District Health Offices
5. Regional Hospitals/General Hospitals/Community Hospitals/Sub-district Health Promotion Hospital
6. Ministry of Social Development and Human Security
7. Ministry of Interior
8. Ministry of Education

Beneficiaries of the programme (rights holders) comprise pregnant women, fathers, carers and infants.

The evaluation will cover all key aspects of the implementation of the First 1,000 Days programme, from its commencement in 2018 until the present. Data collection will be conducted to cover all 12 health regions where the programme has been implemented. Should time availability or other constraints limit the sample size, evaluation activities should not only focus on areas (provinces or health areas) with low growth and development indicators, but should also select areas with medium and high child growth and development indicators.

4. EVALUATION FRAMEWORK AND QUESTIONS

The key evaluation question to be answered by the evaluation is "To what extent has the programme contributed to optimal growth and development of children in Thailand?". In answering this question, specific aspects of programme implementation and results will be assessed using the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee's (DAC) evaluation criteria, comprising relevance, coherence, effectiveness, efficiency, sustainability and impact.[22] In this evaluation, a further criterion of "inclusiveness" has also been added that includes the cross-cutting issues of equity, gender and human rights. Specific evaluation questions according to OECD/DAC criteria are as follows:

Relevance

To what extent did the First 1,000 Days programme respond to and meet the identified needs of the target groups?

Coherence

To what extent has the programme been compatible with other interventions, including policies, in Thailand that are related to the area of ANC/WCC and Early Childhood Development (ECD)?

Effectiveness

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[22] http://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

How effective was the programme design?

- To what extent were programme results based on a theory of change (TOC) clearly outlining intervention logic and a results chain?
- How appropriate was the programme approach and model of implementation in regard to achieving expected objectives and results?

To what extent has the programme achieved its stated objectives? Specifically:

- To what extent has the programme achieved its objectives in terms of planned geographical coverage and scope of activities?
- To what extent has the programme improved the quality of ANC/WCC according to the entitlement package in regard to pregnant women (270 days), infants 0-6 months (180 days) and infants aged 6 months–2 years (550 days)?
- What significant differences exist in work practices and outcomes within First 1,000 Days programme implementation sites in comparison with the situation before commencement of the programme?
- What significant differences in work practices and outcomes are there between First 1,000 Days programme implementation sites and those sites where the programme has not yet been implemented?
- To what extent has the programme raised the level of services?
- To what extent has the programme raised the level of community/local and network participation?

How and to what extent were the innovative aspects of the First 1,000 Days accommodated by the existing programme?

- To what extent did pregnant women, parents, carers, staff understand the DSPM for monitoring child development, nutritional status assessment, child development standards and the First 1,000 Days programme as a whole?
- To what extent did the First 1,000 Days programme result in additional burdens on workload, administration, facilities and equipment, and how were these accommodated?
- To what extent did staff have the capacity to implement the programme, including reporting?
- To what extent was there cooperation between different agencies?

What challenges to achievement of the programme’s objectives have been encountered in the course of implementation and how have they been addressed?

What have been the main achievements of the programme to date, and what are the key factors that have contributed to successful implementation?

Inclusiveness

How successfully has the programme included equity and gender equality, and reached the most vulnerable and marginalized people in the community (including elderly carers, women with disability, migrants and mobile populations, ethnic minority groups and stateless people)?

Efficiency

To what extent was the programme implemented in the most cost-effective way possible, as compared to feasible alternatives?

- How efficient were the management structures?
- Was the programme budget appropriate in terms of intended outcomes?
- Can programme outcomes be demonstrated through monitoring data and reporting?

Are there any aspects of the programme that could have been achieved more effectively by other more cost or time-effective means?

Sustainability

What is the likelihood of the benefits being sustained after completion of the programme?

- How likely is it that relationships and cooperation between stakeholders will be maintained after completion of the programme?
- Is there local ownership of the programme and will staff be motivated to maintain services at the same level after completion of the programme?

What sort of continued support is necessary in order to ensure that services are maintained at the same level after completion of the programme?

- Will provision need to made for on-going training or capacity building of staff?
- What other resources would be required in order to maintain services?
- Should any changes be made in management or at the policy level to ensure services continue to meet the required standards of care?

Impact

To the extent that can be determined, what has been the impact to date of the First 1,000 Days programme, including positive and negative, primary and secondary, long-term effects produced, directly or indirectly intended or unintended?

One of the key tasks at the proposal stage will be to assess the extent to which these questions and criteria have been addressed in the proposal and determine if all key issues have been given due prominence. Bidders are invited to suggest improvements and/or refinements to the draft questions. Further refinements will be possible during the inception stage, with the expectation that the inception process will yield the final set of questions to be agreed by the Steering Committee.

5. EVALUATION APPROACH AND METHODOLOGY

Based on the innovative nature of the programme and its objectives, this section presents a possible approach and methods for the evaluation. The breadth of the programme presents several methodological challenges for evaluation. These include the large number and widespread nature of the implementation sites, implementation at several different levels, involvement of several different agencies, and the wide range of expected outcomes, including biometric, individual behaviour and coordination outcomes. Also, it is expected that the evaluation will be both summative, providing information on the achievement of results to date in implementation sites that can be compared with progress elsewhere, as well as formative, providing information that can be used to improve the programme.

For this reason, a clear methodological approach and sampling strategy should be presented in the proposal. It is suggested that the team combines different methodological approaches, employing a mix of quantitative and qualitative methods. It is necessary for the evaluation to be participatory in nature and include views of all key stakeholders, including both rights holders (parents/carers, in particular pregnant women and mothers) and duty bearers (for example health staff, officials and community network representatives).

In order to assess the extent to which the programme has achieved its objective of change in the target districts/*tambon*s, a case-control approach is suggested, where, in selected provinces, data is collected from "paired" districts/t*ambon*s, comprising one *tambon* per district where the First 1,000 Days programme has been implemented and one where only the regular programme has been implemented.

Quantitative data will be obtained from two main sources, comprising i) routine monitoring data on mothers and infants in the form of records and reports; and ii) survey data obtained through administration of questionnaires, either printed or online. In order to help gather additional information which is non-quantifiable or difficult to quantify, quantitative data will be complemented by qualitative data obtained from informants through in-depth interviews, focus group discussions and observation. Guidelines will be developed during the inception phase for qualitative data collection. Qualitative data, which can also be gathered in non-clinical settings, will be used to validate quantitative data through triangulation, as well as explore in further depth any issues or inconsistences encountered in findings. Qualitative data will be drawn on to prepare a number of case studies of women and children involved in activities, illustrating key aspects of the programme.

Data will be obtained from two main groups of informants. The first comprises stakeholders (duty bearers) and the second beneficiaries (rights holders). Stakeholders will comprise officers at different levels from the MOPH, MSDHS, MOI, and MOE, who have been involved with planning and implementation of the programme. They will include responsible staff from Health Regions, Health Promotion Centers (DOH), Provincial Health Offices, District Health Offices, Regional Hospitals/General Hospitals/Community Hospitals/Sub-district Health Promotion Hospitals, and staff from the MSDHS, MOI and MOE at the national and sub-national level. As provinces differ in regard to the implementation mechanism, it is expected that there will be differences in the allocation of roles and responsibilities, so support will be required from the DOH in coordination with provinces in identification and selection of stakeholder informants. A list of suggested key informants from ministries at

the national level will be prepared by the DOH and provided to the successful consultant during the inception phase.

Beneficiaries of the programme (rights bearers) comprise pregnant women, parents, carers and infants. With support of DOH the successful consultant will be expected to coordinate with focal persons at the provincial and district level in sampling of beneficiaries and selection of informants for interviews and focus group discussions. Care should be taken in sampling to ensure inclusion of vulnerable and marginalized groups using ANC/ECD services, including minority ethnic communities, migrants and remote communities.

Methodological rigour will be given significant consideration in the assessment of proposals. Applicants are invited to comment in their proposals on the approach and methodology presented and suggest any improvements that might be made, or alternate approaches that might better achieve the objectives of the evaluation. Proposals should present a sampling plan, address any methodological limitations and suggest mitigation measures. The evaluation should include the following steps:

Step 1: Desk review of relevant background documents and literature search. A list of key background documents and electronic copies will be provided to the successful evaluation consultant.

Step 2: Preparation of Inception Report including evaluation methodology, workplan and instruments. The evaluation methodology and design will be finalized in consultation and agreement with the Evaluation Steering Committee.

Step 3: Data collection. Data collection should be carried out according to the agreed methodology and design and should be human rights-based, including child rights-based, and equity and gender-sensitive (see Section 8 below).

Step 4: Data analysis. Following completion of data collection, the consultant will present a summary of preliminary findings and draft recommendations using PowerPoint at a workshop organized by the Steering Committee. This will provide an opportunity for: 1) review of progress; 2) validation of key findings; 3) identification of any gaps in data collection; and 4) feedback from Steering Committee members. The consultant will then continue with completion of data analysis.

Step 5: Draft report. Following completion of data analysis, the consultant will proceed to prepare a draft evaluation report. In addition to a description of methodology and presentation of main findings, the report should include conclusions, lessons learned and recommendations. The report structure should follow that of UNICEF-adapted UNEG Evaluation Reports Standards (2017).

Step 6: Presentation of main findings to stakeholders' validation workshop. Following revision of the draft evaluation report based on feedback from the Steering Committee, the consultant will share the main findings through a PowerPoint presentation at a workshop with key stakeholders. The objectives of this meeting will be to: 1) share the main findings and recommendations with key stakeholders; 2) validate the main findings and recommendations; and 3) obtain feedback from stakeholders to enable further refinement of the findings, conclusions and recommendations.

Step 7: Finalization of evaluation report. Following feedback received during the stakeholders' validation workshop, the consultant will revise the report as necessary before submitting the final evaluation to the Steering Committee.

Step 8: Preparation of case studies. At least two case studies, each of around 2-3 pages in length, will be prepared by the consultant, illustrating key findings and significant issues emerging from the evaluation**.**

Step 9: Briefing paper. Prepare a document in English and Thai of 4-pages in length, summarising key findings, lessons and recommendations with infographics.

6. MANAGEMENT AND COORDINATION

The evaluation will be conducted by a team of independent consultants (firm or agency) (the Evaluation Consultant) who will be responsible for the overall conduct of the evaluation, including design of the evaluation methodology (including sampling), development of instruments, recruitment, oversight and guidance of data collectors, data analysis, and preparation of all reports and other deliverables and submission in a timely manner. The Evaluation Consultant will operate under the supervision of the Department of Health's Evaluation Manager, who will serve as the focal point for contact and coordination between the Evaluation Consultant and the Department of Health, be responsible for the day-to-day oversight and management of the evaluation and for the management of the evaluation budget. The Evaluation Manager will facilitate liaison with other stakeholders and access to relevant information and informants. In close consultation with the Evaluation Steering Committee, UNICEF Thailand's Social Policy Unit, the Evaluation Manager will facilitate access to relevant information and informants, ensure that logistical support is provided as agreed, assure the quality and independence of the evaluation, ensure its consistency with UNICEF-UNEG Norms and Standards for Evaluation and Ethical Guidelines as well as UNICEF's Evaluation Policy, the Procedure for Ethical Standards in Research, Evaluation, Data collection and Analysis, and the Evaluation Reports Standards and other relevant protocols, and provide quality assurance.

The Evaluation Steering Committee, in consultation with UNICEF Thailand's Social Policy Unit, will be responsible for review of the evaluation methodology, instruments and workplan, monitor progress in implementation, check that the deliverables are submitted in a timely manner, check that evaluation findings and conclusions are relevant and recommendations are implementable, and contribute to the dissemination of the evaluation findings and follow-up on the management response, including timely review and feedback on deliverables.

7. EVALUATION DELIVERABLES AND WORKPLAN

7.1 Evaluation Deliverables

The evaluation deliverables for this assignment comprise:

1. **Inception Report** in English;
2. Summary of **preliminary evaluation findings** (in Thai and English) in the form of a PowerPoint presentation to be presented at a Steering Committee workshop on completion of data collection;
3. **Draft evaluation report** in English;
4. **PowerPoint presentation** (in Thai and English) **describing the main findings** of the evaluation to be presented at a Stakeholders' Validation Workshop;
5. **Final evaluation report** in English and Thai;
6. At least two **case studies** illustrating key findings and significant issues emerging from the evaluation**.**
7. **Briefing paper** in English and Thai of 4-pages in length, including key findings, lessons and recommendations with infographics.

Other interim products:

i. Minutes of key meetings with the Evaluation Manager and Steering Committee;
ii. Photographic or video materials collected in the course of the evaluation implementation that serve to present observational data or illustrate key findings (these should conform to UNICEF ethical and child rights guidelines);
iii. Bi-weekly reports to the Evaluation Manager to enable monitoring of progress in implementation of the evaluation.

Inception report. The inception report should be of around 20 pages in length (excluding annexes). The report will confirm the consultant's understanding of the evaluation and refine evaluation questions, confirm the scope, elaborate on the approach and methodology, including sampling, detailed evaluation framework (evaluation matrix), and workplan, present instruments to be used for surveys and collection of qualitative data and plans for data analysis. The Inception Report should also outline the composition and role of the members of the evaluation team, coordination and management plans, logistical support required, resources (including a detailed budget), identify possible limitations and/or challenges to implementation of the evaluation and measures to prevent or mitigate these, and outline any ethical considerations that may be foreseen and how these will be addressed. Detailed information such as survey questionnaires, interview and focus group discussion guidelines and other tables or frameworks should be included as annexes.

PowerPoint summary of preliminary evaluation findings. This report will present preliminary evaluation findings from data collection and draft recommendations. Its purpose will be to review progress, validate key initial findings, identify any gaps in data collection and provide an opportunity for questions, discussion and feedback from Steering Committee members.

Draft and final evaluation reports. The final report will not exceed 80 pages, including executive summary and excluding annexes, prepared according to the format and guidelines in the UNICEF-Adapted UNEG Evaluation Report Standards (2017) and GEROS tool.[23] The draft and final reports must be in professional level standard English (if possible, the Final Report should be proof-read by a native English speaker) and Thai. The Executive Summary should be translated into Thai. The first draft of the final report will be received by the Evaluation Manager who will work with the Steering Committee for comments and recommendations for revision. The Evaluation Manager will consolidate all comments and return the feedback to the Evaluation Consultant for use in preparation of the final draft.

PowerPoint presentation of evaluation findings. The PowerPoint will be used to present the main findings and recommendations of the evaluation at a stakeholders' validation workshop. The Evaluation Consultant will use feedback from the key stakeholders' workshop in preparation of the Final Evaluation Report.

Case studies. Following completion of the main body of the Final Evaluation Report, the Evaluation Consultant will prepare at least two case study documents, each of 2-3 pages in length, illustrating key findings and significant issues emerging from the evaluation. These will be suitable for standalone distribution, and included as annexes in the Final Evaluation Report.

Briefing paper. Following approval of the Final Evaluation Report, the consultant should prepare a briefing paper of four pages in length, in English and Thai, including key findings, lessons and recommendations with infographics.

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[23] UNICEF Evaluation Office (2017). *Global Evaluation Report Oversight System* (GEROS).

7.2 Tentative Evaluation Workplan

A tentative timeline and workplan for the evaluation is included in Table 1 below. The timeline anticipates the process of selection of the Evaluation Consultant and contractual arrangements to be completed by February 2020, with commencement of the inception phase of the assignment by March 2020, with submission of the Final Evaluation Report by **30** September 2020.

Table 1: Proposed Evaluation Timeline

ACTIVITY		DELIVERABLE	TIME ESTIMATE	NUMBER OF CONSULTANT WORKING DAYS	RESPONSIBLE PARTY
1.	**INCEPTION**		6 weeks	15	
1.1	Inception meeting/briefing between Evaluation Consultants Team and Steering Committee	Meeting minutes	Week 1	1	Steering Committee and Evaluation Consultants
1.2	Document review	Draft evaluation framework, sampling frame, instruments and workplan	Weeks 1-2	3	Evaluation Consultants
1.3	Draft evaluation framework, sampling frame, preparation of instruments (questionnaires and guidelines for interviews and focus group discussions) and tentative workplan		Week 2	6	Evaluation Consultants
1.4	Share draft evaluation framework, sampling frame, instruments and workplan with Steering Committee for review and comment	Feedback notes and comments on drafts	Week 2-3	[7]	Evaluation Consultants and Steering Committee

ACTIVITY		DELIVERABLE	TIME ESTIMATE	NUMBER OF CONSULTANT WORKING DAYS	RESPONSIBLE PARTY
1.5	Prepare Inception Report and submit to Steering Committee for review and feedback	Draft Inception Report	Week 3	3	Evaluation Consultants
1.6	Feedback to Evaluation Consultants on draft Inception Report	Draft Inception Report with comments	Week 5	[10]	Steering Committee
1.7	Revise and submit revised Inception Report to Steering Committee	Final Inception Report	Week 6	2	Evaluation Consultants
2.	**DATA COLLECTION AND INITIAL ANALYSIS**		10 weeks	43	
2.1	Pilot and refine data collection instruments and training of data collectors	Final versions of questionnaires and interview guidelines etc.	Weeks 6-7	5	Evaluation Consultants
2.2	Data collection		Weeks 7-14	35	Evaluation Consultants
2.3	Preliminary analysis of findings and preparation of PowerPoint presentation for Validation Workshop	PowerPoint presentation	Week 14	2	Evaluation Consultants
2.4	Validation Workshop	PowerPoint presentation, meeting minutes	Week 15	1	Steering Committee Evaluation Consultants

ACTIVITY		DELIVERABLE	TIME ESTIMATE	NUMBER OF CONSULTANT WORKING DAYS	RESPONSIBLE PARTY
3.	**ANALYSIS, REPORTING AND COMMUNICATION OF RESULTS**		12 Weeks	25	
3.1	Data entry, cleaning and analysis of findings		Weeks 16-17	8	Evaluation Consultants
3.2	Prepare first draft of Evaluation Report and submit to Steering Committee for review and comment	Draft Evaluation Report	Weeks 18-19	5	Evaluation Consultants
3.4	Feedback from Steering Committee on Draft Evaluation Report	Report with comments	Week 21	[14]	Steering Committee
3.5	Revision of draft Evaluation Report and submit to Steering Committee for review and comment	Revised draft Evaluation Report	Week 22	5	Evaluation Consultants
3.6	Feedback from Steering Committee on Revised Draft Evaluation Report	Report with comments	Week 24	[14]	Steering Committee
3.7	Present draft Evaluation Results to stakeholders' Validation Meeting	Revised Draft Evaluation Report and PowerPoint presentation	Week 25	1	Evaluation Consultants Steering Committee

ACTIVITY		DELIVERABLE	TIME ESTIMATE	NUMBER OF CONSULTANT WORKING DAYS	RESPONSIBLE PARTY
3.8	Revision of draft Evaluation Report based on feedback from stakeholders' validation meeting and submit to Steering Committee for approval	Final Evaluation Report	Week 26	3	Evaluation Consultants
3.9	Preparation of case studies and submit to Steering Committee for approval	2 case studies	Week 26	2	Evaluation Consultants
3.10	Approval of Final Report, PowerPoint and Case Studies by Steering Committee	Final Evaluation Report, PowerPoint and Case Studies	Week 27	[14]	Steering Committee
3.11	Prepare 4 page briefing paper and submit to Steering Committee for review and approval	1 briefing paper in English and Thai	Week 29	1	Evaluation Consultants
3.12	Review and approval of Briefing Paper	briefing paper	Week 29	[2]	Steering Committee
	Total working days			**83**	

8. GENDER AND HUMAN RIGHTS, INCLUDING CHILD RIGHTS

The evaluation should be consistent with accepted international standards, in order to ensure that the design, process and results incorporate the principles of objectivity, validity of findings, and that equity, Human Rights, including child rights and gender equality. The evaluation process, including approach, methodology, implementation and reporting, should be guided by UNICEF's revised Evaluation Policy (2018)[24], the United Nations Evaluation Group (UNEG) Norms and Standards for Evaluation (2016), the UNEG Guidance on Integrating Human Rights and Gender Equality in Evaluation, and the UN-SWAP Evaluation Performance Indicator.

All aspects of the evaluation design should reflect the principles outlined above and include measures to ensure equity, respect for Human Rights, including child rights and gender equality, especially in regard to sampling, site selection, research instruments, team composition, data collection techniques, including visual and audio data, participation of rights holders, confidentiality and safekeeping of data collected and its disposal after completion of the assignment.

The publications listed above provide further information on the how human rights, including gender equality and child rights, can be incorporated in the evaluation design.

9. EVALUATION TEAM PROFILE

The evaluation will be carried out by a team of individual consultants or by a qualified consulting firm or agency. The team should have the following qualifications, competencies and experience:

The evaluation team leader should have:

- An advanced university degree (Masters or higher) in public health, international development, public policy, development economics, monitoring and evaluation or similar, including knowledge of ECD;
- Good team leadership and management skills, as well as excellent interpersonal and communication skills;
- Extensive evaluation experience (at least 10 years) with an excellent understanding of evaluation principles and methodologies, including capacity in qualitative and quantitative evaluation methods and participatory approaches;
- Specific evaluation experience of ECD;
- Previous experience in management and support of summative and/or formative programme evaluations;
- Excellent understanding of UNEG Norms and Standards with relevant experience conducting evaluation using the UNEG Norms and Standards;
- Previous experience of working in Thailand with good understanding of the Thailand context and cultural dynamics;
- Good command of spoken and written English and the ability to concisely and clearly express ideas and concepts in written and oral form;
- Fluency in Thai language is desirable;
- The team leader must be committed and willing to work independently, with limited regular supervision; s/he must demonstrate adaptability and flexibility, client orientation, proven ethical practice, initiative, concern for accuracy and quality.

[24] UNICEF's revised Evaluation Policy: https://www.unicef.org/about/execboard/files/2018-14-Revised_Eval-ODS-EN.pdf

The team should include other members who have:

- Advanced university degrees (Masters or higher) in public health, international development, public policy, development economics, monitoring and evaluation or similar, including knowledge of ECD
- In-depth knowledge of ANC/ECD in the Thailand context including government policy and programme implementation;
- Hands-on experience in research and/or evaluation, collection and analysis of quantitative and qualitative data and participatory approaches, ideally with some experience in the ANC/ECD sector;
- Commitment and willingness to work in a complex environment and ability to produce quality work under limited guidance and supervision;
- Expertise in equity, gender equality and human rights-based approaches to evaluation;
- Strong expertise and understanding of application of equity, gender equality and human rights-based approaches to evaluation and expertise in data presentation and visualisation;
- Native speaker fluency in Thai with excellent communication skills in written and spoken language; good skills in English would be an advantage.

The consultants must strictly adhere to the UNEG ethical guidelines and code of conduct, and UNICEF Procedure for Ethical Standards in Research, Evaluation and Data Collection and Analysis. Consultants should clearly identify any potential ethical issues and approaches, as well as the processes for ethical review and oversight of the evaluation process in their proposal.

10. ADMINISTRATIVE ISSUES

Costs to be met by the consultant will include:

- All reasonable aspects of the evaluation according to the budget agreed on in the Contract;
- Logistic related expenses;
- Stationery, communication and IT costs
- Field visits, accommodation, food and travel of Evaluation Team;
- Consultancy fees;
- Translation fees (if any).

Costs to be met by the Department of Health:

- Workshop and Steering Committee meetings;
- Dissemination of Final Evaluation Report

11. APPLICATION PROCEDURE

Interested individual consultants, firms and agencies are invited to apply for the assignment. Applications should include:

- A cover letter/expression of interest based on the requirements of the TOR, including key contact name and address for correspondence;
- Curriculum Vitae of all team members;
- Names and contact details of three referees;
- Example(s) of previous work;

- A detailed proposal comprising a technical and a financial proposal:
  - The technical proposal should include:
    - Names of all team members, expertise and description of roles and responsibilities and indication of number of days of input per person;
    - Understanding of the context and purpose of the evaluation;
    - Description of proposed approach and methodology, highlighting any variations from those proposed in the TOR with rationale, including sampling frame and data analysis;
    - Detailed workplan, based on that in the TOR, with comments and proposed adjustments, if any;
    - Anticipated challenges and limitations and measures to address these;
    - Ethical and Human Rights considerations;
  - The financial proposal should include:
    - Resource costs: daily rate multiplied by number of days input for each team member;
    - Travel costs, with a breakdown for all travel;
    - Other costs, specifying nature and cost breakdown.

Applications should be sent to Bureau of Nutrition, Department of Health, Ministry of Public Health no later than 9 March 2020 (Midnight). Any queries to the Terms of Reference can be referred to Mrs. Nuttawan Chaolilitkul email nutwan65@gmail.com

12. PAYMENT SCHEDULE AND PENALTIES FOR UNDERPERFORMANCE

Unless the proposers propose an alternative payment schedule, payments will be as follows:

- Approved Inception Report: 20% of the contractual amount;
- Approved preliminary evaluation findings report: 30% of the contractual amount;
- Approved Final Evaluation Report, final PowerPoint presentation, case studies and briefing paper: 50%.

ANNEX II EVALUATION MATRIX

Evaluation criterion 1. Relevance				
Evaluation Question **To what extent did the First 1,000 Days programme respond to and meet the identified needs of the target groups?**				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note

Were the objectives of the intervention relevant to identified needs of the target?	Evidence of different types of service/activities provided based on needs.	IDI Desk review	Duty bearers, beneficiaries Project documents(Plan, result)	
Were the activities appropriate to needs of the target group?	-Evidence of services/activities received that meet/do not meet the identified needs.	FGD	Beneficiaries Village health volunteers (VHV)	
	% of beneficiaries who met their needs (by group)	Questionnaire	Beneficiaries	
Evaluation criterion 2. Coherence				
Evaluation Question **To what extent has the programme been compatible with other interventions, including policies, in Thailand that are related to the area of ANC/WCC and Early Childhood Development (ECD)?**				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
To what extent has the programme been compatible with other interventions?	Evidence of policy/ies that are compatible with programme	IDI Desk review	Duty bearers, project documents	
	Evidence of projects and activities that are compatible with programme	IDI Desk review FGD (VHV)	Health volunteer, ANC/WCC Health officer, Director of hospital, DOH VHV	
Has the project facilitated synergies with interventions and strategies promoted by other ministries?				

Evaluation criterion 3. Effectiveness				
Evaluation Question **3.1 How effective was the programme design?**				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
3.1.1 To what extent were programme results based on a theory of change (TOC) clearly outlining intervention logic and a results chain?	relevant	Desk review IDI	Documents (plan, results) Stakeholders, DOH	
3.1.2 How appropriate was the programme approach and model of implementation in regard to achieving expected objectives and results?	-Level of satisfaction among beneficiaries -Desk review -Evidence of the programme appropriateness	Questionnaire IDI	Beneficiaries Hospital director Stakeholder (duty bearers)	
	- Impression service (neg+positive)	FGD, IDI	Beneficiaries	

Evaluation Question 3 Effectiveness

3.2 To what extent has the programme achieved its stated objectives? Specifically:

Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
3.2.1 To what extent has the programme achieved its objectives in terms of planned geographical coverage and scope of activities?	-% of beneficiaries participated -Types of activities provided	Questionnaires Recorded from the MOPH -Desk review	Beneficiaries MOPH report	
3.2.2 To what extent has the programme improved the quality of ANC/WCC according to the entitlement package in regard to pregnant women (270 days), infants 0-6 months (180 days) and infants aged 6 months–2 years (550 days)?	-% of beneficiaries have appropriate knowledge -% of beneficiaries practice appropriately -Level of satisfaction on ANC/WCC attendance	Questionnaire IDI FGD IDI	Beneficiaries Stakeholders (director, policy)	
3.2.3 What significant differences exist in work practices and outcomes within First 1,000 Days programme implementation sites in comparison with the situation before commencement of the programme?	- Different knowledge from before the programme of ANC/WCC health officer - Different practice from before the programme of ANC/WCC health officer	IDI Questionnaire and IDI and FGD	ANC/WCC health officer, Director, policy level Beneficiaries	
	-% of anaemia pregnancy -% of low birth weight -% of 0-2 years old children have normal nutritional status	- Recorded from the MOPH -MICS6 data, UNICEF - Survey 0-2 years old children on	-MOPH report - Beneficiaries	

Evaluation Question 3 Effectiveness **3.2 To what extent has the programme achieved its stated objectives? Specifically**:				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
	- % of 0-2 years old children have normal development	nutritional status and development		
3.2.4 What significant differences in work practices and outcomes are there between First 1,000 Days programme implementation sites and those sites where the programme has not yet been implemented?	-% of anaemia pregnancy -% of low birth weight -% of 0-2 years old children have normal nutritional status - % of 0-2 years old children have normal development	- Recorded from the MOPH - Survey 0-2 years old children on nutritional status and development	-MOPH report - Beneficiaries	
3.2.5 To what extent has the programme raised the level of services?	-Evidence of better ANC/WCC services- Type of training received for the programme among ANC/WCC health officer	IDI	- Hospital Director -ANC/WCC health officer	
3.2.6 To what extent has the programme raised the level of community/local and network participation?	-Evidence of community participation -Number of network/partnership -Type of support from partnerships	IDI	-Health volunteer -ANC/WCC health officer - Hospital Director -Beneficiaries, - VHV	

Evaluation Question 3 Effectiveness 3.3 How and to what extent were the innovative aspects of the First 1,000 Days accommodated by the existing programme?				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
3.3.1 To what extent did pregnant women, parents, carers, staff understand the DSPM for monitoring child development, nutritional status assessment, child development standards, and the First 1,000 Days programme as a whole?	- Level of knowledge of beneficiaries on DSPM - Practice of beneficiaries on DSPM -Level of satisfaction among beneficiaries on DSPM	Questionnaires	-Beneficiaries	
	- Evidence of practice of beneficiaries on DSPM, problem and solution among them	FGD IDIs	-Beneficiaries	
	- Level of knowledge on DSPM among officer -Level of satisfaction of officer on DSPM	IDI	-ANC/WCC health officer	
3.3.2 To what extent did the First 1,000 Days programme result in additional burdens on workload, administration, facilities and equipment, and how were these accommodated?	-Type of workload from the programme among ANC/WCC health officer -Evidence of management of facility and instruments for the programme	-IDI	-Hospital director -ANC/WCC health officer	

3.3.3 To what extent did staff have the capacity to implement the programme, including reporting?	- Level of officer performance for conducting the programme -Level of officer capacity on development report -Capacity needed	IDI	-Hospital director, staff	
3.3.4 To what extent was there cooperation between different agencies?	-Evidence of collaboration between different agencies for the programme	IDI	Stakeholders (Duty bearers)	

Evaluation Question 3 Effectiveness

3.4 What challenges to achievement of the programme's objectives have been encountered in the course of implementation and how have they been addressed?

Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
3.4.1 What challenges to the achievement of the programme's objectives have been encountered in the course of implementation, and how have they been addressed?	-Type of challenge for achieving programme objectives -Evidence of running under the challenges -Covid-19 impact	IDI Documents	Stakeholders (Duty bearers)	
3.4.2 What have been the programme's main achievements to date, and what are the key factors that have contributed to successful implementation**?**	-Type of key achievement of programme -Factors drive to programme achievement in the future	IDI	Stakeholders (Duty bearers)	

Evaluation Question 4. Inclusiveness

How successfully has the programme included equity and gender equality, and reached the most vulnerable and marginalized people in the community (including elderly carers, women with disability, migrants and mobile populations, ethnic minority groups and stateless people)?

Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
To what extent are vulnerable and marginalized people in the community receiving the intervention?	-% of coverage among beneficiaries -language barrier -disability (place, facility)	Document Questionnaire	MOPH report Beneficiaries	
Are vulnerable and marginalized people in the community receiving the intervention in the same way as others?	- Level of satisfaction among the poor and minority			
What support is provided to enable people with disabilities and migrants to access ANC/WCC services?	Facility supported	Site visit	Check list	
	- Evidence of satisfaction, equity	IDI	-Beneficiaries	

Evaluation Question 5. Efficiency				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
5.1 To what extent was the programme implemented in the most cost-effective way possible, as compared to feasible alternatives?				
5.1.1 How efficient were the management structures?	-Evidence of effectiveness of management structure	IDI Desk reviews	-Hospital director -ANC/WCC Staff -Hospital document	
5.1.2 Was the programme budget appropriate in terms of intended outcomes?	- Budget	IDI	Stakeholders (Duty bearers)	
5.1.3 Can programme outcomes be demonstrated through monitoring data and reporting?	-% of the report on time -% of the correctness of the report -Monitoring system	IDI Desk review (clear,)	-Hospital director/policy - Datacenter officer of MOPH	
5.2 Are there any aspects of the programme that could have been achieved more effectively by other more cost or time-effective means?	-Suggestions for improving programme efficiency	IDI	Stakeholders (Duty bearers)	

Evaluation Question 6. Sustainability				
Sub-questions	Measure/Indicator of progress	Data Collection Methods	Main Sources of Data/ Information	Note
6.1 What is the likelihood of the benefits being sustained after completion of the programme?				
6.1.1 How likely is it that relationships and cooperation between stakeholders will be maintained after completion of the programme?	-Evidence of stakeholder collaboration will be continued after the programme end	IDI	Stakeholders (Duty bearers)	
6.1.2 Is there local ownership of the programme and will staff be motivated to maintain services at the same level after completion of the programme?	-The level of programme ownership among people in the community (Annual Plan, document, policy, committee etc) -The level of motivation among health officer to maintain service quality after programme end	IDI Desk review	Local government organization, VHV -Hospital director -Staff	
	- Evidence of ownership among people in the community	FGD	-Beneficiaries) -VHV	
6.2 What sort of continued support is necessary in order to ensure that services are maintained at the same level after completion of the programme?				
6.2.1 Will provision need to made for ongoing training or capacity building of staff?	-Type of continue training needed of officer -Type of capacity building training need of officer	IDI	Stakeholders (Duty bearers:MOPH)	

6.2.2 What other resources would be required in order to maintain services?	-Type of resource needed to maintain service quality	IDI	- Stakeholders (Duty bearers:MOPH) -VHV	
6.2.3 Should any changes be made in management or at the policy level to ensure services continue to meet the required standards of care?	-Type of policy change for maintaining service quality -Type of management change for maintaining service quality	IDI	- Stakeholders (Duty bearers:MOPH) -VHV	

ANNEX III ETHICAL CLEARANCE

ใบรับรองโครงการวิจัย

การประชุมครั้งที่ 3/2564	**วันที่** 21 ธันวาคม 2563

รหัสโครงการวิจัย 442/2564

เรื่อง การประเมินผลการขับเคลื่อนงานมหัศจรรย์ 1,000 วันแรกของชีวิต
(EVALUATION OF FIRST 1,000 DAYS OF LIFE PROGRAMME)

ผู้วิจัยหลัก นางณัฐวรรณ เชาวน์ลิลิตกุล

เป็นการพิจารณาโครงการวิจัยแบบเร่งรัด	☐ ใช่	☑ ไม่ใช่
เป็นการพิจารณาโครงการวิจัยแบบปกติ	☑ ใช่	☐ ไม่ใช่

ผลการพิจารณาของคณะกรรมการจริยธรรมการวิจัย ครั้งนี้

☑ รับรอง วันที่พิจารณารับรอง 11 มกราคม 2564

โครงการวิจัย 442	ฉบับที่.....1......	วันที่ ...... 11 มกราคม 2564.....
เอกสารแนะนำอาสาสมัคร RF09-04-442	ฉบับที่.....1......	วันที่ ...... 11 มกราคม 2564.....
ใบยินยอม RF09-05-442	ฉบับที่.....1......	วันที่ ...... 11 มกราคม 2564.....
เครื่องมือ (ระบุ) RF09-10.1-442, RF09-10.2-442 RF09-10.3-442, RF09-10.4-442, RF09-10.5-442, RF09-10.6-442, RF09-10.7-442, RF09-10.8-442 RF09-10.9-442, RF09-10.10-442	ฉบับที่.....1......	วันที่ ...... 11 มกราคม 2564.....

ลงนาม...

(นายสมพงษ์ ชัยโอภานนท์)

ประธานคณะกรรมการพิจารณาจริยธรรมการวิจัยเกี่ยวกับมนุษย์ กรมอนามัย

กรมอนามัย
DEPARTMENT OF HEALTH
MINISTRY OF PUBLIC HEALTH

รับรองตั้งแต่วันที่ ..... 11 มกราคม 2564..... ถึงวันที่ ..... 10 มกราคม 2565.......

<u>หมายเหตุ</u>

- คณะกรรมการฯ ขอแจ้งเกี่ยวกับหน้าที่และความรับผิดชอบของผู้วิจัยภายหลังได้รับการรับรอง คือ <u>ต้องรายงานความก้าวหน้าของการวิจัยให้คณะกรรมการฯ ทราบทุก 6 เดือน</u> (RF13-01) และเมื่อเกิดเหตุการณ์ต่อไปนี้ ทุกครั้ง ได้แก่

1)เมื่อมีอาการไม่พึงประสงค์เกิดขึ้นในโครงการ หากเป็นอาการไม่พึงประสงค์ที่ร้ายแรงต้องรายงานให้คณะกรรมการฯ ทราบโดยเร็ว และให้ผู้วิจัยวิเคราะห์สถานการณ์การเกิดอาการไม่พึงประสงค์ว่าเกี่ยวข้องกับโครงการวิจัยที่ท่านรับผิดชอบหรือไม่ อย่างไร หากเกี่ยวข้องในระดับใด รวมทั้งการดูแลรักษาและป้องกันอาสาสมัครด้วย (RF18-01, RF18-02)

2)เมื่อมีการเปลี่ยนแปลงในโครงการวิจัยต้องระบุให้ชัดเจนว่า มีการเปลี่ยนแปลงอะไร อย่างไร พร้อมทั้งเหตุผลที่เปลี่ยนแปลงเพื่อขอความเห็นชอบจากคณะกรรมการฯ ก่อน (RF12-01)

3)เมื่อมีการเปลี่ยนแปลงหัวหน้าโครงการวิจัยหรือเพิ่มเติมคณะผู้วิจัย ต้องส่งประวัติของคนที่เปลี่ยนแปลง พร้อมเหตุผลให้คณะกรรมการฯ เพื่อพิจารณาให้ความเห็นชอบก่อน

4)เมื่อโครงการวิจัยยุติลง ซึ่งอาจจะเป็นการดำเนินการวิจัยเสร็จสมบูรณ์ หรืออาจจะไม่สามารถดำเนินการวิจัยต่อไปได้ พร้อมทั้งสาเหตุของการยุติโครงการวิจัยด้วย (RF14-01)

ANNEX IV SAMPLING STRATEGY

SELECTION OF STUDY SITES

A multi-stage systematic random sampling method was adopted. Due to budget and time limitations, sampling was based on selecting 2 sub-districts in one province in each of 4 regions. Total 8 sub-districts were included for data collection. There were three stages in the selection process, as briefly described below. The results of the selection are shown in **Table 2**.

Stage 1: Thailand is traditionally divided into four regions: North, Central, Northeastern, and Southern Thailand. One province was randomly selected in each region after exclusion of small-sized provinces. The province size was determined in accordance with the guidelines for the allocation of provincial budgets and provincial groups for fiscal year 2020, based on the Office of the National Economic and Social Development Commissions (NESDC) criteria[25], according to which provinces can be divided into three sizes: large (24 provinces), medium-sized (39), and small (13). The simple random method was applied to select one province from each region resulting in the selection of four provinces: Kamphaengphet, Phra Nakhon Si Ayutthaya, Nong Khai, and Krabi.

Stage 2: In each province, two districts were selected by the systematic random method. If the programme was not implemented in a selected district, then there was a random selection of the next district until two districts were identified where the programme was implemented.

Stage 3: In each district, the two sub-districts with the highest birth rate (based on Health Data Center (HDC) data, 2020) were included in the study. If the programme had not been implemented in the selected sub-district, then the next sub-district was selected until two sub-districts were found where the programme had been implemented.

An important challenge in the selection of study areas was the impact of the COVID-19 pandemic. In some cases, where provinces, districts, or sub-districts reported a high rate of COVID-19 cases, MOPH officers were unable to cooperate with the evaluation. In such cases, the evaluator changed the study area using the same sampling method. Kamphaengphet and Phra Nakhon Si Ayutthaya provinces were originally selected in the Northern and Central region but were changed to Sukhothai and Chanthaburi provinces, respectively, because the COVID-19 situation did not permit data collection to be undertaken. The results of the selection of the study areas are shown in Table 2.

Table 6 Sites for data collection

Region	Province	Sub-district/district 1	Sub-district/district 2
North	Sukhothai	Krai Nai/Kong Krailat	Thai Chana Suek/Thung Saliam

[25] According to NESDC's Subcommittee on Integrating Academic Development Policy No. 2/2018, province size is categorized according to three elements and weighted accordingly: number of districts; population size.

Northeast	Nongkhai	Ban Pho/Phon Phisai	Khok Khon/Tha Bo
Central	Chanthaburi	Wan Yao/Khlung	Thap Chang/Soi Dao
South	Krabi	Khlong Hin/Ao Luek	Plai Phraya/Plai Phraya

SELECTION OF BENEFICIARIES (RIGHTS HOLDERS) AND STAKEHOLDERS

2.5.2.1 Selection of beneficiaries (for questionnaires)

All pregnant women and postnatal women with children aged 0-11 months who lived in those subdistricts and met the criteria were included in the study.

The beneficiaries included in the evaluation comprised all pregnant women and postnatal women with children aged 0-11 months who lived in the selected sub-districts for at least six months. Given the much greater number of children aged 0-2 years, a formula was used to calculate the sample size for children aged 0-2 years participating in quantitative data collection were stated above (see section 2.3).

2.5.2.2 Selection of beneficiaries for interviews

Participants were purposively selected based on the criterion that they reflected clearly crucial issues and essential aspects of the programme, both negative and positive. About 10-20 per cent of each type of the programme beneficiaries who completed questionnaires were invited to participate in IDI. It was originally proposed that 48 beneficiaries would participate in in-depth interviews (IDI) and another 48 would participate in FGD. However, owing to the limitations of the COVID-19 pandemic, FGD could not be conducted, so about half of the beneficiaries originally planned for participation in FGD were recruited for IDI. In total 16 pregnant women, 20 mothers of children aged 0-11 months, and 36 parents/carers of children aged 0-2 years from each of the four provinces participated in in-depth interviews, making a total of 72 informants. Details of the number, type and location of programme beneficiaries participating in IDI are provided in **Table 3.**

Table 7 In-depth interview beneficiaries

Province	Pregnant women, (n)	Mothers of children aged 0 - 11 months (n)	Parents/carers of children aged 0 - 2 years (n)	Total
Sukhothai	4	5	9	18
Nongkhai	4	5	9	18
Chanthaburi	4	5	9	18
Krabi	4	5	9	18
TOTAL	16	20	36	72

The criteria for selecting beneficiaries for IDI were as follows:

1) **Inclusion criteria**

i. Pregnant women, postnatal women, parents/parents of children aged 0-2 years who had resided in target sub-district for at least 6 months.
ii. VHV who had worked in the sub-district for at least 1 year.
iii. ANC/WCC who had worked in the clinic for at least 1 year

2) Exclusion criteria

i. Pregnant women, postnatal women, parents/parents of children aged 0-2 years absent during data collection.
ii. Refusal to participate in the programme

3) Discontinuation criteria

Beneficiaries who wished to withdraw from the project.

2.5.2.3 Selection of stakeholders for IDI

IDI were carried out with 111 key stakeholders (duty bearers) at the regional, provincial, district, and sub-district levels, purposively selected as listed above (see **Table 3)**. With facilitation from the DOH, each identified stakeholder was contacted for the scheduling of interviews and discussions.

2.5.2.4 Questionnaires

In order to answer the evaluation questions and groups of samples, 13 questionnaires were developed: four questionnaires for interviews with four groups of beneficiaries; three questionnaires for IDI with three groups of beneficiaries; and six questionnaires for IDI with stakeholders. Details of the 13 questionnaires are as follows:

2) Questionnaires for pregnant women consisted of questions about weight, height, ANC services utilization, community support, health knowledge, and practice.
3) Questionnaires for postnatal women consisted of questions about weight, height, WCC services utilization, community support, health knowledge, and practice.
4) Questionnaires for carers of a child aged 0-6 months consisted of questionsabout the child, i.e. weight, height, and development, and information about child care, i.e. WCC services utilization, community support, health knowledge, and practice.
5) Questionnaires for carers of a child aged 6-24 months consisted of questions about the child, i.e. weight, height, and development, and information about child care, i.e. WCC services utilization, community support, health knowledge, and practice.
6) In-depth interviews for ANC/WCC officers focused on inputs and working processes.
7) In-depth interviews for SAO/SM officers focused on supporting activities for the beneficiaries and network.
8) In-depth interviews for VHV asked about activities for the beneficiaries and network.
9) In-depth interviews for executives asked about communication, process, and supervision.
10) In-depth interviews for MOPH technical officers asked about communication, process, and supervision.
11) In-depth interviews for MSDHS technical officers asked about worked related to women and early childhood in terms of communication, work-driven processes and cooperation.
12) In-depth interviews for pregnant women consisted of questions about ANC services utilization, sources of information, community support, health knowledge, and practice.
13) In-depth interviews for postnatal women consisted of questions about WCC services utilization, sources of information, community support, health knowledge, and practice.
14) In-depth interviews for carers of a child aged 0-2 years consisted of questions about child care, i.e. WCC services utilization, sources of information, community support, health knowledge, and practice.

To obtain relevant information in most reliable and valid manner, the questionnaires were tested for content validity and construct validity. First, the questionnaires were presented and discussed with stakeholders of DOH, MOPH. After revising, three sets of experts (evaluation specialists, behavioural science experts and nutrition experts) examined the accuracy and coverage of the content to meet the study's objectives. The last revisions for questionnaires were based on face-to-face interviews with beneficiaries which tested for feasibility, readability, consistency of style and formatting, and clarity of language.

ANNEX V DOCUMENTS REVIEWED

At the commencement of the inception phase the DOH provided the evaluation team with a set of relevant programme documents, including the programme design document "Guidelines for Development of the First 1,000 Days of Life" (in Thai Naew thang kan khap khluean mahasachan 1,000 wan raek khong chiwit), Powerpoint presentations, quarterly and yearly monitoring reports, publications and a range of other documents. Documents were reviewed for details of programme management, such as policy, the working committees at each level, and the related projects in the sub-districts. The review of these documents informed the development of the Evaluation Framework, sampling plan, and the questionnaire and interview guidelines to be used in data collection.