



Review of Saving Lives, Spreading Smiles

**Prepared by Human Development Monitoring and
Evaluation Services (HDMES)**

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The findings, observations and recommendations offered were compiled by the Independent Review team and therefore do not necessarily represent the views of DFAT or the Government of Australia, the Government of the Independent State of Papua New Guinea, the National Department of Health, the Department of National Planning and Monitoring, or UNICEF.

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Abbreviations and Acronyms

| Term | Definition |
|-----------------|---|
| ADB | Asian Development Bank |
| AHC | Australian High Commission [Port Moresby] |
| AIP | Annual Implementation Plan |
| AMTSL | Active Management of Third Stage of Labour |
| ANC | Antenatal Care |
| BFHI | Baby-Friendly Hospital Initiative |
| BKK | <i>Bebi Kol Kilok</i> (Baby Cold Clock) |
| C4D | Communication for Development |
| CBO | Community-Based Organisation |
| CDC | Centers for Disease Control and Prevention [United States of America] |
| CFR | Case Fatality Rate |
| CHAC | Child Health Advisory Committee |
| CHW | Community Health Worker |
| CoE | Centres of Excellence |
| COVID-19 | Coronavirus Disease of 2019 |
| DDA | District Development Authority |
| DFAT | Department of Foreign Affairs and Trade [Australia] |
| DHS | Demographic and Health Survey |
| DID | Disability-Inclusive Development |
| DNPM | Department of National Planning and Monitoring [Papua New Guinea] |
| DPO | Disabled People's Organisation |
| DSIP | District Services Improvement Program |
| EENC | Early Essential Newborn Care |
| EHP | Eastern Highlands Province |
| EIBF | Early Initiation of Breastfeeding |
| ENB | East New Britain [Province] |
| eNHIS | Electronic National Health Information System |
| FBO | Faith-Based Organisation |
| GBV | Gender-Based Violence |
| GESI | Gender Equity and Social Inclusion |
| GoPNG | Government of Papua New Guinea |
| HDMES | Human Development Monitoring and Evaluation Services |
| HEO | Health Extension Officer |
| HVDL | High-Volume Delivery Load |
| IMCI | Integrated Management of Childhood Illnesses |
| KRQ | Key Review Question |
| KII | Key Informant Interview |
| KC | Kangaroo Care (previously KMC or Kangaroo Mother Care) |
| LBW | Low Birth Weight |
| LLG | Local Level Government |
| M&E | Monitoring and Evaluation |
| MEL | Monitoring, Evaluation and Learning |
| MMR | Maternal Mortality Rate |
| MNCH | Maternal, Neonatal and Child Health |

| Term | Definition |
|---------------|--|
| MO | Medical Officer |
| MW/N | Midwife/Nurse |
| NASG | Non-pneumatic Anti-Shock Garment |
| NCHAC | National Child Health Advisory Committee |
| NDoH | National Department of Health [Papua New Guinea] |
| NGO | Non-Government Organisation |
| NHIS | National Health Information System |
| NMR | Neonatal Mortality Rate |
| PAF | Performance Assessment Framework |
| PATH | Papua New Guinea–Australia Transition to Health |
| PHA | Provincial Health Authority |
| PNC | Postnatal Care |
| PNG | Papua New Guinea |
| PPH | Post-Partum Haemorrhage |
| PSIP | Provincial Services Improvement Program |
| PWD | People With Disability |
| RMNCH | Reproductive, Maternal, Newborn and Child Health |
| S2S | Skin-to-Skin |
| SBA | Skilled Birth Attendant |
| SCNU | Special Care Newborn Unit |
| SHP | Southern Highlands Province |
| SLSS | Saving Lives, Spreading Smiles |
| SRH | Sexual and Reproductive Health |
| STI | Sexually-Transmitted Infection |
| TBA | Traditional Birth Attendant |
| TTU | Touching the Untouchables |
| UN | United Nations |
| UNICEF | United Nations Children’s Fund |
| VHV | Village Health Volunteer |
| WHO | World Health Organization |
| WHP | Western Highlands Province |
| WPRO | Western Pacific Regional Office [WHO] |

Executive Summary

Background

Saving Lives, Spreading Smiles (SLSS) is a nationwide program that aims to improve health outcomes for mothers and newborns by increasing political commitment to Early Essential Newborn Care (EENC), improving the quality of EENC services, and improving caregivers' understanding of the importance of EENC. SLSS was implemented by the United Nations Children's Fund (UNICEF) in partnership with the National Department of Health (NDoH) and Provincial Health Authorities (PHAs) in Papua New Guinea (PNG) and funded by the Australian Government Department of Foreign Affairs and Trade (DFAT). This review covers Phase 1 (2015 to 2017; AUD 3.6 million), and Phase 2 (July 2018 to August 2021; AUD 2.9 million) of the program (total AUD 6.5 million over six years). The review was undertaken from December 2020 to July 2021 and captures data and progress only available at that time, from inception up to 2019.

The goal, outcome and outputs of SLSS were as follows¹:

- **Goal:** Contribute to reduce neonatal mortality and morbidity in Papua New Guinea by the end of 2021.
- **Outcome:** By end 2021, mothers and fathers have improved and equitable access to and use of early essential new-born care services that enhance the health status of mothers and babies and increase the survival of about 250,000 newborns in PNG.
- **Output 1:** Strengthened political commitment, accountability with real-time health performance information at the provincial level to plan, budget and deliver early essential new-born care Programme by end of 2021.
- **Output 2:** Health facilities and selected communities have the capacity (equipment, trained and supervised staff, and monitored services) to provide quality facility-based and community-based EENC to all new-borns including in humanitarian situations by end of 2021.
- **Output 3:** Communities, parents and other caregivers have better understanding on the importance of EENC and demonstrate positive attitudes towards key Maternal and New-born healthcare practices by June 2021.

Review purpose and methods

The primary purpose of the review was to assess the effectiveness and efficiency of the program, specifically in terms of progress towards outcomes. The secondary purpose was to assess continued relevance, gender equity and inclusivity, sustainability of activities, and the utility of monitoring and evaluation data.

Data collection consisted of a document review, interviews with 40 national and provincial stakeholders including DFAT, UNICEF, NDoH, Department of National Planning and Monitoring (DNPM), PHAs, health facilities and development partners; and field visits and interviews with 102 local stakeholders, including health workers, Village Health Volunteers (VHVs), and caregivers.

¹ The wording of the outcome and output statements were revised multiple times throughout Phase 1 and 2. Most significantly, Phase 1 focused on Outputs 1 and 2 only, with Output 3 added for Phase 2. The wording here is from the UNICEF SLSS Progress Report for September 2019 to August 2020, the most recent progress report available at the time this review was undertaken. The Outcome target of survival of 250,000 newborns was a Phase 2 target.

Findings

Relevance: SLSS aligns closely with DFAT and Government of PNG (GoPNG) policy priorities and is extremely appropriate given high rates of maternal and neonatal mortality in PNG. Contextual impacts, including leadership changes in the NDoH, and the COVID-19 pandemic, impeded progress on targets. COVID-19 was a significant barrier to reaching targets in Phase 2 because program activities were halted during lockdown periods, travel restrictions affected health workers' participation in training and supervision, and fear of COVID-19 affected use of health services.

Effectiveness: The SLSS design is largely consistent with global best practice in EENC. Significant progress towards SLSS's outputs and outcome are outlined below:

- **Output 1: Strengthened political commitment to EENC:** There is evidence SLSS has contributed to increased political commitment to EENC at a national level (including engagement of MPs and the role of the First Lady as the program's Ambassador), through UNICEF's strong advocacy and partnership with NDoH. However, translation of this commitment to the operational level has been mixed. It has not resulted in an increased health budget for EENC. At the provincial level, SLSS facilitated the inclusion of EENC in activity implementation plans in seven provinces (Phase 2 only), and formation of eleven Provincial Child Health Advisory Committees (Phase 2 only), however most Committees are not currently active. Some provincial budgets include EENC activities, but these largely remain unfunded.
- **Output 2: Improved capacity to provide EENC services:** SLSS, through the combination of training and equipment provision, has been effective in improving capacity to provide EENC services. SLSS provided training and equipment to 382 health facilities (cumulative Phase 1 and 2), trained 1,428 staff in EENC through in-service training (cumulative Phase 1 and 2), and supported integration of EENC into the pre-service midwifery training curriculum. However, staff shortages and poor infrastructure at some health facilities has limited the capacity of staff to apply their new skills.
- **Output 3: Improved understanding of the importance of EENC:** SLSS has made progress in improving caregiver understanding of the importance of EENC. SLSS trained 414 VHVs to provide community based EENC (cumulative Phase 1 and 2) and community-based awareness meetings reportedly reached over 111,000 people (Phase 2 only). VHVs trained by SLSS have been successful in improving caregivers' understanding of the importance of ANC and EENC, encouraging women to attend facilities for antenatal and delivery care, and supporting health workers. It should be noted, however, that the VHV engagement was only introduced in five districts and maintaining and expanding the VHV program requires ongoing funding.
- **Outcome: Improved access to EENC:** SLSS has improved access to EENC for women who deliver in health facilities, reaching 104,000 newborns with EENC in Phase 1 (72% of Phase 1 target of 144,000), and 96,350 mothers and newborns in Phase 2, as of December 2019 (39% of phase 2 target²). There is no data to assess whether SLSS has contributed to reductions in maternal and neonatal mortality, but key program interventions, such as Kangaroo Care (KC), EENC at birth, and resuscitation of newborns with asphyxia, are likely to have reduced avoidable mortality and saved lives for women and newborns who were able to access EENC services.

Efficiency: EENC is a cost-effective approach to reducing neonatal mortality, as it applies low-cost interventions at the critical time of birth, thus preventing newborns from developing complications which would then require intensive and more costly interventions to treat. The program also adopted cost-effective approaches during implementation, including using existing systems, and maximising coverage through a focus on high-volume delivery facilities. As EENC is only available to women who give birth in health facilities (not those who give birth in the village) women's limited access to health facilities is a major constraint to effectiveness and efficiency of SLSS. Subsequently, some of SLSS's

² The SLSS End of Program Report August 2022 found that Phase 2 target was achieved with a total of 319,235 mothers and newborns reached with high impact interventions and more than 281,000 newborns delivered in the health facility across 22 provinces.

efficiency gains came with trade-offs. For example, focusing capacity building on high-volume delivery facilities (Levels 3–7) enabled potentially more efficient use of resources, but at the cost of limiting capacity building at lower-level facilities (Levels 1–2), which might have improved access for women in remote areas.

Monitoring and evaluation (M&E): M&E was assessed as ‘barely adequate’ against DFAT M&E Standards. Key gaps include the lack of a comprehensive M&E plan, the focus of the Results Framework preferencing reach over quality and equity of service delivery, and poor quality of progress reporting. Poor data quality and unclear reporting in SLSS progress reports have hampered the ability for this review to make clear assessments of overall progress. While budget allocation for M&E activities was adequate, it was underspent.

Gender equity and social inclusion (GESI): SLSS lacks a clear strategy for identifying gender and disability-related inequalities that limit participation in maternal, neonatal and child health (MNCH) services and activities. The approach of ‘mainstreaming’ gender and disability may have led to a dilution of effort: specifically, efforts to identify and address barriers to men’s participation in MNCH services and activities; improve access of mothers/babies with a disability to MNCH services; and document GESI activities and outcomes.

Sustainability: The impacts of COVID-19, and GoPNG resource limitations, are the key challenges to sustainability of SLSS achievements. While SLSS successfully increased political commitment to MNCH and EENC, this has yet to translate into increased GoPNG resourcing at national, provincial or district level. This poses considerable challenges for future training, supervision and mentoring activities, the VHV program, and the continuation of technologies introduced by SLSS, which are dependent on ongoing resourcing.

Conclusion

There is a clear need for health system strengthening efforts focused on improving maternal and neonatal health outcomes in PNG, where mortality rates are currently off track to meet the Sustainable Development Goal targets. This review found that the SLSS program is highly relevant to this context. It demonstrated effectiveness at improving the availability of key maternal and neonatal health interventions, within existing mid-level primary care facilities, and supported women to give birth at those facilities.

A key constraint to SLSS’s effectiveness is that access to EENC services remains limited to women delivering in health facilities, and this proportion has declined between 2015 and 2020 in provinces where SLSS was implemented. Moreover, delivery of EENC continues to be impacted by broader health system constraints not addressed by SLSS, such as insufficient staffing, poor infrastructure, and ongoing issues with re-supply of equipment and supplies – all of which threaten the sustainability of SLSS’s achievements.

Advocating for political commitment at the national and provincial level is an appropriate response to addressing sustainability, and the program has seen some success in raising the profile of neonatal health needs. Translating political will into budgetary commitment though has been less evident, and within the current fiscal context this is likely to be an ongoing challenge. For a more significant impact on population health outcomes, the SLSS program would need to be funded alongside broader strategies to improve the coverage of facility-based delivery.

Detailed recommendations for UNICEF, DFAT, and GoPNG NDoH for the remainder of the program and in the longer term are outlined in this report. The recommendations identify areas where continued investments could build on the achievements of the SLSS program to improve MNCH outcomes.

1. Introduction

1.1. Background

This review examines the overall contribution of the Saving Lives, Spreading Smiles (SLSS) program to the Australian Department of Foreign Affairs and Trade (DFAT) goal of reducing maternal and child mortality in Papua New Guinea (PNG). Funded under a Grant Agreement with the United Nations Children's Fund (UNICEF), SLSS is implemented in partnership with the National Department of Health (NDoH) and Provincial Health Authorities (PHAs). The program focuses specifically on Early Essential Newborn Care (EENC) services and has been designed to enhance the health status and increase the survival of mothers and newborns. The review covers Phase 1 (2015 to 2017; AUD 3.6 million), and Phase 2 (July 2018 to August 2021; AUD 2.9 million). It was undertaken from December 2020 to July 2021.

1.2. Current situation

While estimates vary³, it is consistently recognised that PNG has high rates of both maternal mortality (171 per 100,000 live births) and perinatal mortality (i.e. stillbirths and newborns dying in the first 7 days, estimated at 17 deaths/1,000 pregnancies). These high mortality rates are related to the low number of births (55%) being supervised in health facilities, with wide regional differences.⁴ Provincial responsibility for health services means that responses to address these high mortality rates need to be addressed at sub-national level.

The 2019 Ministerial Taskforce on Maternal and Neonatal Health identified specific barriers to maternal and neonatal health as: persistent high rates of home delivery with untrained birth attendants; community-level facilities lacking the capacity to provide safe care of normal delivery; transportation and cultural barriers restricting referral of women or newborns with complications to higher-level facilities; referral facilities lacking necessary equipment and supplies; and not enough trained staff to appropriately manage maternal and neonatal complications. The taskforce also noted that the following are needed: improved quality of pre-service training; more trained staff available at facilities; and regular, ongoing in-service refresher training and supervision.

1.3. Saving Lives, Spreading Smiles program

The SLSS program attempts to address many of the issues identified by the Ministerial Taskforce. The purpose of Phase 1 was to prevent and manage the most common causes of maternal and neonatal mortality, through evidence-based interventions including labour monitoring; active management of the third stage of labour (AMTSL); prevention and management of post-partum haemorrhage (PPH); and provision of postnatal care to mother and baby in 11 provinces. Provision of referral and postnatal care through Village Health Volunteers (VHVs) was also piloted in Henganofi District (Eastern Highlands Province). Phase 2 built on the Phase 1 pilot by providing the same package of care and scaling up the VHV program. The VHVs are expected to contribute through early detection and referral of sick neonates and pregnant mothers with danger signs, and through raising community awareness of safe delivery and neonatal care, thereby creating demand for improved services. The program goal, outcome and outputs are shown in Table 1.

The program was implemented PNG-wide, with 413 high-volume delivery facilities in 89 districts targeted in Phase 2. The reach of the VHV program was smaller – while initially the target was to implement VHV in 22 provinces, this was scaled back to one district in seven provinces. To achieve

³ Mola, G. & Kirby, B. 'Discrepancies between national maternal mortality data and international estimates: the experience of Papua New Guinea', *Reproductive Health Matters*, 21(42):191–202, 2013.

⁴ National Demographic and Health Survey (DHS) Report, 2016–18.

these outcomes, SLSS implemented a range of activities, including curriculum revision, training of health workers and volunteers, renovations and additions to health facilities, provision of equipment and supplies, and awareness raising activities (see Annex A for more detail).

Table 1: SLSS outputs, outcomes and goal⁵

| Component | Details |
|----------------|---|
| Goal | Contribute to reduce neonatal mortality and morbidity in Papua New Guinea by the end of 2021. |
| Outcome | By end 2021, mothers and fathers have improved and equitable access to and use of early essential new-born care services that enhance the health status of mothers and babies and increase the survival of about 250,000 newborns in PNG. |
| Outputs | <p>Output 1: Strengthened political commitment, accountability with real-time health performance information at the provincial level to plan, budget and deliver early essential new-born care Programme by end of 2021.</p> <p>Output 2: Health facilities and selected communities have the capacity (equipment, trained and supervised staff, and monitored services) to provide quality facility-based and community-based EENC to all new-borns including in humanitarian situations by end of 2021.</p> <p>Output 3: Communities, parents and other caregivers have better understanding on the importance of EENC and demonstrate positive attitudes towards key Maternal and New-born healthcare practices by June 2021.</p> |

1.4. Review purpose, scope and methodology

The review was guided by the Review Plan, approved by the Australian High Commission (AHC) in February 2021. The review team consisted of an M&E Specialist and three Health Specialists based in Australia, and two Policy and Research Officers based in Port Moresby. The review was overseen by a Steering Committee (including representatives from NDoH, Department of National Planning and Monitoring (DNPM), DFAT, UNICEF, and HDMES).

The review responds to the following Key Review Questions (KRQs), developed in consultation with the Steering Committee (refer to Annex B for more detail):

- **Effectiveness:** KRQ1. To what extent did the program achieve its expected outputs and end of program outcome?
- **Efficiency:** KRQ2. To what extent has the program contributed to cost-effective service delivery?
- **Relevance:** KRQ3. To what extent is the program relevant, considering any changes in context?
- **Gender Equity:** KRQ4. To what extent have gender principles been incorporated into the design and delivery of this program?
- **Monitoring and Evaluation:** KRQ5. To what extent have the findings from operational research, monitoring and evaluation been utilised in programming, planning, learning and accountability?
- **Sustainability:** KRQ6. To what extent are the positive changes and effects sustainable after the completion of the SLSS program?

As the SLSS design lacked an explicit theory of change, the review adopted a modified theory-based approach, examining progress of activity implementation towards achieving outputs and outcomes in

⁵The wording of the outcome and output statements were revised multiple times throughout Phase 1 and 2. Most significantly, Phase 1 focused on Outputs 1 and 2 only, with Output 3 added for Phase 2. The wording here is from the UNICEF SLSS Progress Report for September 2019 to August 2020, the most recent progress report available at the time this review was undertaken.

often-challenging contexts. Effectiveness was assessed against relevant best practice guidelines, using the World Health Organization (WHO) Western Pacific Office framework for EENC actions (WPRO EENC action plan 2014–2020)⁶ as a contextually-appropriate assessment tool (see Annex G).

Findings for the assessment of progress were largely drawn from data from four provinces selected by the Steering Committee: Eastern Highlands (EHP), Western Highlands (WHP), Madang, East New Britain (ENB), as well as from Port Moresby. The team was provided with the most recent data for these four provinces and the capital, and all Key Informant Interviews (KIIs) were drawn from these locations, which enabled a level of data triangulation.

Data collection largely consisted of document analysis (Annex C) and Key Informant Interviews. Due to COVID-19 restrictions, the interviews were conducted in two phases, with initial interviews at national and provincial levels conducted remotely, and interviews at facility and field level conducted face-to-face. In the first phase, 33 interviews were conducted remotely with 40 interviewees from DFAT, UNICEF, NDoH, DNPM, PHAs, hospitals, health centres, and other development partners (see Annex E). In the second phase, 101 interviews were conducted face-to-face with 25 health workers, 42 VHV's, and 35 parents/caregivers (see Annex F). Note three caregiver interviews were excluded, bringing the total to 32. Interview data was de-identified and analysed thematically.

1.5. Limitations of the review

Limitations of the review mainly relate to the inability of the international team to travel to PNG for data collection, and the difficulty in interpreting data from both the National Health Information System (NHIS) and program reporting. Limitations include:

- Reliance on data collected and reported by the SLSS program team as the basis for assessing program inputs, activities, and achievement. A sparse design document and lack of detail in subsequent progress reporting meant that basic project data reported across both phases was difficult to reconcile, requiring some interpretation to gain an overall picture of the extent and type of inputs provided. Changes to activities and their implications, as well as activity coverage, quality and coverage of outcomes were difficult to decipher.
- Connectivity issues constrained the effectiveness of remote interviews, particularly at the provincial/district level.
- Conducting the review remotely restricted opportunistic informal discussion with key informants, and among team members, which informs deeper understanding of contextual complexities and constraints leading to less rigorous analysis.
- The sample of caregivers (N=32 included) interviewed about their engagement with VHV's was not fully representative of the population of women giving birth. Only a few respondents did not give birth in a health facility (N=3) while most did give birth in a health facility (N=29), favourably skewing the effectiveness of the VHV's.
- The VHV's recruited for interviews were very engaged in their communities and aligned with the health facilities. There was no data from inactive VHV's, although anecdotal reports indicated that many trained VHV's are no longer active.

Despite these limitations, the team is confident that the data collected provides a sufficiently sound basis for an initial assessment of the program's achievements. Where there are limitations in the assessment in specific areas, these are indicated in the report.

⁶ WHO-UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

2. Analysis and Findings

2.1. KRQ1. To what extent did the program achieve its expected outputs and end of program outcome?

Summary of key findings

The design of the program was assessed in light of the joint UNICEF and WHO Action Plan for Healthy Newborn Infants in the Western Pacific Region, and the program takes an integrated approach to improving coverage of maternal and newborn health interventions for all women and children. This is consistent with best practice in promoting a combination of interventions during pregnancy, labour and delivery, and post-partum and neonatal periods. Consistent with the WPRO EENC Plan 2014–2020, SLSS appropriately takes a health systems strengthening/support approach, aiming to improve the capacity of existing government and non-government services and providers. While SLSS is consistent with global health plans, there are some limitations in the approach. For example, the focus on Level 3–7 health facilities risks overlooking the role and capacity of lower-level facilities (Levels 1–2) that provide the closest access for the community. Further, there does not appear to be an overarching strategy to address the shortage of appropriate health workers, or the capacity of community and first-level health facilities to provide care for normal delivery, or first-level emergency obstetric and neonatal care that is the basis for EENC. While these are beyond the scope of SLSS, they critically undermine and limit the opportunities and prospects of projects like SLSS, which provide real benefits to PNG.

Key achievements by outputs are summarised below:

Output 1: Significant political awareness of EENC has been achieved through UNICEF’s advocacy efforts and strong partnership with the NDoH. While the visibility of EENC has increased, this has not yet translated into budgetary contributions for EENC interventions from the Government of PNG (GoPNG).

Output 2: SLSS has made progress on improving capacity of health facilities to provide quality EENC service. This has been achieved through the program’s efforts to address some of the key constraints to EENC service delivery, such as skills and knowledge of existing staff, and availability of equipment. SLSS interviewees perceived that pre-service and in-service training had led to improvements in the quality of care.

Output 3: SLSS has made progress in improving caregiver understanding of the importance of EENC, through the training of VHVs in maternal health and EENC. Facility-level visits and interviews demonstrated that VHVs have played and continue to play a vital role in supporting the provision of services in lower-level facilities by building caregiver understanding of services, through education activities, and supporting the community to access facilities. They are a valuable resource for the health service, and frequently work for little or no reward. The SLSS program has been able to build on this existing resource and strengthen its engagement, but the sustainability of these efforts is threatened by lack of ongoing funding support.

Progress towards the overall end-of-program outcome (improve equitable access to and use of EENC) is likely to have been achieved through the focus on improving EENC capacity (through staff training and equipment provision) and promoting awareness of and access to EENC (through VHVs). However, reports from SLSS, and from the NDoH NHIS, do not enable direct measurement of the health status of mothers and babies, nor the impact on mortality. In addition, improvements in EENC delivery are limited by broader health system constraints not addressed in the SLSS design, including insufficient staffing; lack of funding for travel of supervisors and trainers to follow up and support trainees in their workplaces; lack of funding for referral transport; and ongoing issues with re-supply of equipment and

medical supplies. Moreover, the full package of EENC is limited to women delivering their babies in health facilities, and this proportion has not increased over the period of the program.

Recommendations

Refer to Recommendations 1, 3, 4, 5 and 10.

This section reviews the program logic and design, the effectiveness of activities implemented in relation to the three program outputs, and the impact of these outputs on service utilisation.

2.1.1. Alignment of the program design with global best practice

The design of the program was assessed in light of joint UNICEF and WHO Action Plan for Healthy Newborn Infants in the Western Pacific Region (WPRO EENC plan 2014–2020 – see Annex G).

Maternal and neonatal service packages and technologies: The program takes an integrated approach to improving coverage of maternal and newborn health interventions for all women and children. This is consistent with best practice in promoting a combination of interventions during pregnancy, labour and delivery, and post-partum and neonatal periods. The causes of maternal, foetal and neonatal deaths are often the same, and strategies that focus on these conditions will likely have a combined impact. Conditions that might result in the death of a mother, foetus or newborn are difficult to predict, so interventions need to be available to all women and newborns.

SLSS piloted the introduction of two ‘innovative’ technologies, the *Bebi Kol Kilok* (BKK) and NASGs, within the context of EENC. The BKK is a hypothermia alert bracelet that rings an alarm heard by its mother when the baby’s temperature drops. It was piloted in PNG through a broad collaboration involving the NDoH and others and evaluated by the Centers for Disease Control and Prevention (CDC) in 2018 using a quasi-experimental approach.⁷ Anecdotal data and findings from the BKK evaluation suggests that the technologies were effective, however there is not yet enough data for it to be included as part of the WHO global standards. In contrast, the NASG, which is a garment used to temporarily maintain blood pressure in women suffering from post-partum haemorrhage, has been included in WHO’s list of essential maternal health interventions.

Supply-side support: Consistent with the WPRO EENC Plan 2014–2020, SLSS has appropriately taken a health systems strengthening/support approach, aiming to improve the capacity of existing government and non-government services and providers. Supply-side interventions, across both the first and second outputs, were ambitious. These aimed to strengthen national and provincial governance mechanisms and planning processes, improve the competency of existing health workers, procure and deliver key supplies and equipment, and improve facility standards. There does not appear to be a specific strategy to address the shortage of appropriate health workers, nor the capacity of community and first-level health facilities to provide care for normal delivery, or the provision of first-level emergency obstetric and neonatal care that is the basis for EENC. The WPRO EENC plan, for example, includes specific strategies to ensure the availability of a trained birth attendant for every birth. Interviewees recognised this problem, commenting on the lack of midwives at the health post, and noting the multiple tasks that staff at that level had to cover, leaving little time for EENC.

The program also focuses on high-volume delivery facilities (Levels 3–7), which risks neglecting the role and capacity of lower-level facilities (Levels 1–2) which provide frontline care closest to many communities.⁸ Visits and interviews at Level 2 facilities found that staff had participated in the training and adopted EENC practices, but the efficacy of these activities was limited by staff shortages and poor

⁷ Centers for Disease Control and Prevention, Evaluation of *Bebi Kol Kilok* Implementation in Papua New Guinea, 2018, and UNICEF Management Response April 2018.

⁸ Level 1 facilities are aid posts that provide basic first aid services for up to 2,000 people. Level 2 are health centres that provided basic medical services, ante-natal care and emergency obstetrics for up to 5,000 people.

infrastructure. Furthermore, access challenges due to geography, transport, and customary practices, continue to disadvantage women in remote area, reducing SLSS's capacity to achieve equity.

Demand-side support: On the demand side, the program design assumes that the VHV program will lead to changes in community knowledge and attitudes, which in turn will lead to greater demand for maternal and neonatal care. Such strategies are endorsed by WPRO, and consistent with evidence that suggests educational strategies can improve utilisation. It must be noted however that there is inconsistent evidence that this alone leads to improved health outcomes.⁹ The reliance on addressing community knowledge and attitudes does not acknowledge the impact of other demand-side constraints, including financial and geographic barriers to access care.

'In terms of the design, the behaviour change component is totally missing the process of behaviour change.' (B6)

2.1.2. Progress towards Output 1: Improved political commitment to EENC

Output 1 aimed to improve political commitment to EENC through eight activities focused largely on: policy support to the National Child Health Advisory Committee (NCHAC); establishing child health advisory committees (CHACs) at the provincial and district levels; and supporting the analysis of bottlenecks to services at the provincial level, which in turn would support the inclusion of EENC activities within provincial annual implementation plans (AIPs), and budgetary allocations. In the SLSS 2019–2020 progress report, UNICEF measured progress towards this output via one indicator – number of provincial CHACs functioning. The other indicator for Output 1 – number of costed provincial newborn health plans incorporated into the provincial AIPs – was considered already fully achieved. The following, charts progress made at the national and provincial levels.

At the **national level**, a significant number of interviewees were of the view that political will to address neonatal mortality has increased, principally through UNICEF's advocacy and strong partnerships with the NDoH. UNICEF has had success in socialising the program among national decision-makers, through the launch of the program held in parliament, regular meetings held between Members of Parliament, NDoH, and UNICEF, and the First Lady's role as an ambassador for the program. UNICEF has a strong partnership with the NDoH, and the NDoH has welcomed SLSS's support for a second Child Health Officer. NCHAC/NDoH have endorsed the EENC, Kangaroo Care (KC), and NASG guidelines, as well as pre-service training modules and competency standards for EENC and KC, a significant achievement.¹⁰

While this engagement is perceived to have improved the political visibility of EENC, a similar number of interviewees indicated it has not yet translated into measures that would strengthen SLSS long term. Budgetary contributions from the GoPNG have not been forthcoming, and overall functioning of the NCHAC, including both the frequency of meetings and the level of information reported at those meetings, has significantly declined since 2018. The Child Health Adviser position has been vacant for some years. Others felt that partnerships with other global maternal, neonatal and child health (MNCH) actors were not maximised during the implementation of the SLSS. For example, technical

⁹ Lassi, Z.S., Kedor, S.G.E., & Bhutta, Z.A. 'Community-based maternal and newborn educational care packages for improving neonatal health and survival in low- and middle-income countries. *Cochrane Database of Systematic Reviews* 2019, Issue 11. Art. No.: CD007647. DOI: 10.1002/14651858.CD007647.pub2; Hurst, T.E., Semrau, K., Patna, M., Gawande, A., & Hirschhorn, L.R. 'Demand-side interventions for maternal care: evidence of more use, not better outcomes. *BMC Pregnancy Childbirth*. 2015; 15:297. Published 2015 Nov 13. DOI:10.1186/s12884-015-0727-5.

¹⁰ SLSS Progress Report 2020, p.11–12.

expertise from other United Nations agencies was not engaged in the SLSS design process, and partnerships were not strengthened to maximise opportunities to bring the approach to scale.

At the **provincial and district levels**, little progress has been made with respect to the establishment of formal governance mechanisms. UNICEF reported in 2019 that Provincial CHACs have been formed ‘for all seven provinces (WHP, ENB, New Ireland, Morobe, Western, Manus, Enga)’ and are meeting quarterly, and that an additional 4 CHACs were established in 2020.¹¹ Interviewees at the national and provincial levels for this review noted that they had either not yet established these committees, or that they were inactive (only the WHP CHAC reportedly met in December 2020). It is unclear what specific activities UNICEF has undertaken in support of the PHAs and CHACs, aside from supporting core PHA child health staff, facilitating AIP preparation, and regular meetings with PHA staff. Interviewees noted that some PHAs had only recently been established and lacked maturity. Notwithstanding the above, there is some evidence that the SLSS program has effectively engaged with the PHAs and helped to strengthen relationships between provincial officials.

There is also evidence that provincial planning processes for child and newborn health have improved. SLSS progress reporting indicated inclusion of newborn care AIPs in seven provinces in Phase 2¹² and UNICEF described this as key to sustainability beyond DFAT funding’.¹³

‘The bigger things in the PHA, is now... rolling it [EENC] into our corporate plan. We are trying to ensure that it is maintained and sustained. We have allocated the manpower to sustain the programs.... We have included this in our PHA programs.’ (EH3)

Planning processes for EENC have improved, and financial commitments have been made through AIPs, but this is yet to translate to ongoing budgetary contributions, either through the provincial budgets (Provincial Services Improvement Program (PSIP) and/or other budgetary commitment), or to district budgets (District Services Improvement Program (DSIP), and/or other budgetary commitment), which are allocated by Members of Parliament.

‘In the 2020 AIP we included 58,000 for SLSS [in the budget], especially to support the NASG in the village, refresher training for VHV, and KC kits. But we didn’t receive the budget.’ (WH2)

Despite UNICEF’s evident commitment to advocacy, the assumption that improved planning and budgeting processes for newborn health would result in increased resources at the provincial and district levels has proven unrealistic. This undermines the sustainability of SLSS, the interventions SLSS has introduced (the BKK and NSAG) and the VHV program. In the context of PNG, long-term and consistent donor support may be required, particularly given the economic and social costs of the current COVID-19 pandemic.

2.1.3. Progress towards Output 2: Improving capacity of health facilities to provide quality EENC services

Output 2 interventions have focused on 382 of the 413 targeted high-volume delivery facilities (Level 3 and 4 facilities with more than 50 deliveries per year)¹⁴ and were progressively extended to cover

¹¹ SLSS Progress Report 2019, p.13; UNICEF Progress Report 2020, p.10.

¹² SLSS Progress Report 2019, p.14; UNICEF Progress Report 2020, p.10.

¹³ SLSS Progress Report 2019, p.14.

¹⁴ According to the M&E Framework, at the beginning of the program, only 30 per cent of high-volume delivery facilities were equipped to provide quality EENC services.

all provinces by 2019. Below we discuss the training of staff and the upgrading of facilities, which are the major activities under this output.

Training of staff: Staff were trained in the provision of EENC. EENC includes care of the mother during labour and delivery (monitoring of labour using a partograph); active management of the third stage of labour (AMTSL) to reduce the risk of PPH; and care of the newborn at birth, including resuscitation of newborns not breathing at birth (birth asphyxia). SLSS training introduced some clinical techniques and innovations that were new to the PNG context, including: allowing the newborn to remain on the mother's abdomen after birth (skin-to-skin contact, or S2S); encouraging KC for low birth weight (LBW) newborns and those in colder climate areas and higher altitudes; as well as use of the BKK and NASG. More active and participatory training methods, including the use of anatomical models, were used and welcomed by trainers and trainees.

Staff were trained through pre- and in-service training, as well as ongoing supervision through a group of trained master trainers developed by SLSS. SLSS reports that 1,428 staff have been trained in EENC through in-service training (Phase 1 and 2), and 1,089 trained in AMTSL (Phase 2 only) (refer to Annex A for further information). For pre-service training, EENC training was integrated into the midwifery teaching curriculum.

Staff trained through in-service training were primarily nurses and midwives. Interviewees in some locations (EHP) reported that the training focused on facility-based staff, while others (WHP) focused on Community Health Workers (CHWs). The lack of a clear strategy or data on skill changes over the long-term, however, hinders comparison of such strategies. Of note, interviewees reported that staff who attended the training shared their new knowledge and skills with staff who had not attended training, resulting in the routine adoption of the EENC delivery practices in the supported facilities. It is unclear whether there was dissemination beyond the facilities where staff participated in the training.

Despite the relatively low number of in-service trainees achieving post-test scores above 80% (43% in year 1 and 61% in year 2), staff responded that they valued the training, and that it led to adoption of the practices taught. EHP interviewees estimated that of 45% of staff trained, approximately half were able to apply the knowledge, and that there was a subsequent improvement in management of obstetric emergencies, skills for postnatal care (PNC), and care for LBW newborns. EHP interviewees noted improvement in the management of obstetric and neonatal emergencies by facility-based staff and reported an increase in referrals from health facilities to higher-level facilities. WHP reported an increase in the awareness and knowledge of CHWs for EENC.

One interviewee was of the view that mentoring, supervision and on-the-job training were more effective than classroom-based training. Other interviewees (WHP) noted the lack of funding for supervision and mentoring as a major constraint.

'We spend a lot on bringing people to the district centre for training and expect them to practise when they go back to the district. But it doesn't happen. We have added mentorship, supervision and on-the-job training. ...UNICEF supported us with the funding to visit all 8 districts 4–5 times....' (EH3)

Upgrading and providing supplies and equipment to selected facilities: Across Phase 1 and 2, SLSS upgraded and provided supplies and equipment to 382 health facilities, primarily at district and provincial levels. Depending on the facility, this has included neonatal resuscitation equipment, BKK and NASGs. In addition, some renovation and repairs were undertaken in facilities that required these, including provision of solar/wind electricity generation (three facilities). Some renovation of provincial and regional hospitals to provide care for sick and LBW newborns was also undertaken, with Nonga

General Hospital Special Care Newborn Unit (SCNU) upgraded with rooms for mothers, and the ENB SCNU fully equipped with KC rooms for mothers whose babies are preterm and/or low birth weight. However, the review team was unable to verify these reported achievements or their quality.

Notwithstanding investment in supplies, infrastructure and training, as well as increased demand for facility-based births, many interviewees suggested major supply-side constraints remained. For example, in WHP, the hospital's labour ward was closed when it only had five staff, as 10 were required for it to function. These issues were confirmed by facility visits, which found that some facilities, both Level 2 and Level 3, needed significant repair and improvement, and lacked basic supplies such as running water and electricity (see table in Appendix F). In addition, staffing constraints in some facilities resulted in VHVs taking on significant roles, including assisting deliveries and providing EENC in the absence of formal staff, or when only male staff were available.

2.1.4. Progress towards Output 3: Improved caregiver understanding of the importance of EENC

Output 3 aimed to improve caregiver understanding of the importance of EENC through the use of VHVs. UNICEF measured progress through proportion of VHVs with adequate knowledge and skills on communication and counselling to support maternal and neonatal service delivery; percentage of people reached by civil society organisations conducting participatory community mobilisation; and percentage of mothers and caregivers knowledgeable on essential newborn care practices.

A total of 414 VHVs were trained and equipped with birthing kits and KC kits to provide care through home visits and referral to health centres as required (cumulative Phase 1 and 2). VHVs were trained to deliver education and awareness-raising activities to promote immunisation, nutrition and family planning; antenatal care (ANC); identification of pregnancy danger signs; referral for supervised delivery; PNC to mother and baby with early detection and referral for Integrated Management of Childhood Illnesses (IMCI); identification of low birth weight, premature and preterm babies; and management of neonatal hypothermia (applying the BKK).

Between September 2019 and August 2020, UNICEF reported that VHVs reached:

- 1,706 mothers for ANC.
- 1,432 women in labour. Out of those, 1,079 were referred for supervised births at health centres, while 353 were supported to deliver in their communities.
- 1,432 babies and mothers through 2,410 PNC visits.
- 1,494 babies to accompany them for immunisations.
- 973 women with referrals to family planning.
- 98,613 people through 1,099 community meetings.

Changes in understanding of EENC among mothers and fathers were noted in interviews with provincial staff, health workers, VHVs, and caregivers themselves. Health workers reported that they observed behaviour changes such as increased KC and breastfeeding. VHVs reported they observed parents had improved understanding of the importance of registering for ANC clinics and attending health facilities for delivery. VHVs also observed parents taking newborns delivered in the village to health facilities to be weighed, checked and immunised. They noted this was not common practice in the past.

Although the caregivers selected for interview were not representative of the full population of women giving birth, as most respondents (29/32) gave birth in a facility, they were able to provide the following information on the role of VHV:

- VHV's played a role in the delivery of the last baby for most respondents (26/32) and influenced many women (23/32) to give birth in facilities. VHV's did this by talking to women and their husbands during ANC home and/or facility visits about the importance of giving birth in a facility, accompanying women to facilities at the time of delivery, and supporting them through the delivery. The VHV's presence was perceived to be associated with more respectful care from nurses and medical staff.
- Most respondents (29/32) reported receiving key messages from the VHV during ANC visits in the home or facility, including the importance of maternal nutrition, rest, and exercise.
- Most respondents (28/32) also reported receiving key messages from VHV's on how to care for their baby, including through PNC visits. Messages recalled included keeping the baby warm and clean, the importance of breastfeeding/exclusive breastfeeding for six months and ensuring that the baby attending its one-month check-up and received immunisations. Several respondents referred to KC and skin-to-skin.

These are notable achievements and indicate that the VHV's have effectively conveyed messages about the importance of EENC, that VHV's have been able to gain the trust of women and men in the communities they work in, and that some staff in health facilities have gained confidence in the support that VHV's provide.

'There has been an improvement in the number of women going to the facility for ANC and for deliveries. Attitude has more or less changed to things such as family planning as more people are now aware of how accessible the family planning methods are and also how it would not affect future fertility, so they are more open to accessing it.' (VHV28)

'...I have seen big changes and the respect for us is there from the community...Before, we used to see pregnant mothers, those who just delivered, being careless smoking and chewing [betel nut] or playing cards and not committed to attending ANC clinics or baby clinics but now we can see some changes and it's good.' (VHV 44)

'Through SLSS we see mothers feeding babies for six months. VHV's visit mothers at day 1, 3, 28. Conduct awareness on breastfeeding, personal hygiene, family planning and monitor them. When the baby is one month, mother comes for family planning and baby for immunisation... Created a referral pathway by VHV's bridging the gap between community and health facilities.' (D4)

The VHV's also conducted awareness-raising activities in community settings through church groups, community gatherings, and individual meetings with parents and caregivers in their homes. It is difficult to determine from SLSS progress reports how many people were reached by awareness-raising activities, however, appears to be over 111,000 people.¹⁵ The strategy for Communication for Development (C4D) was not elaborated in the SLSS design, and the results of the 'Knowledge Attitudes Beliefs Practice' study, although budgeted, were not reported in documents provided to the review team. Progress reporting also provides scant analysis of awareness-raising activities.

The reported low drop-out of VHV's who have received training (27% since 2017, n=100/138 in one district) shows that individual VHV's can remain motivated and supported to provide key maternal and

¹⁵ From SLSS progress reports, 98 community awareness meetings were held in Phase 1 (number of attendees not reported); 102 meetings with 13,500 attendees in Phase 2 Year 1; and 1,099 community and mothers' meetings with 98,000 attendees in Phase 2 Year 2. It is not clear whether the Phase 2 Year 2 numbers were cumulative for Year 1 and 2, or for Year 2 only – the total presented above (over 111,000) assumes the data were not cumulative.

newborn care and awareness activities in their communities. Support for VHVs was mainly provided in the form of reimbursements to cover costs for food and travel to attend VHV training. In addition, some were provided with equipment such as an Ambo bag, a BKK, a torch, uniform, KC kits/cloths and birthing kits when they attended the VHV training.

2.1.5.SLSS contribution to improved maternal and newborn health outcomes

SLSS's intended outcome was: By end 2021, mothers and fathers have improved and equitable access to and use of early essential new-born care services that enhance the health status of mothers and babies and increase the survival of about 250,000 newborns in PNG.

The SLSS outcome statement has three levels:

- (a) improved and equitable access to and use of EENC services (access);
- (b) enhance the health status of mothers and babies and increase the survival of newborns (impact);
- (c) of about 250,000 newborns (extent of coverage).

Reporting from SLSS and from the NDoH NHIS does not enable direct measurement of the health status of mothers and babies, or the impact on mortality. Measurement of maternal and neonatal death rates requires either a comprehensive functioning vital statistics system, or relies on periodic large sample surveys, such as the Demographic and Health Survey (DHS), which can only provide average rates over a five-year period. These and other monitoring and evaluation (M&E) issues are discussed more fully in Section 2.5 below. This section provides analysis of the data that are available for each of the three elements of the outcome statement.

(a) Improved and equitable access to, and use of, EENC services

Access to EENC services first requires attending a health facility for delivery. MNCH and NHIS data on facility-based deliveries in SLSS provinces are available for 2015 to 2020 (Table 2) and suggest there was a slight decrease in the proportion of facility-based deliveries in the period 2015 to 2019, followed by a larger decrease in 2020 due to COVID-19. Consistent with this, provincial data reported in the NHIS did not demonstrate improvements in access to services measured by ANC visits or delivery in facilities in any of the four provinces and Port Moresby that were the sample for this review, over the period 2015 to 2020.

Table 2: Proportion of delivery in health facilities (2015–2020) and number of women delivering in facilities (2020), in SLSS provinces

| Provinces | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 % | 2020 Number |
|---------------------------|------|------|------|------|------|-----------|--------------------|
| Phase 1 (11 provinces) | 42% | 40% | 38% | 37% | 36% | 30% | 47,157 |
| Phase 2 (11 provinces) | 38% | 38% | 35% | 34% | 33% | 33% | 45,747 |
| Total | 40% | 39% | 37% | 35% | 35% | 31% | 92,904/ 296,000 |

Source: MNCH reports, NHIS.

While these data demonstrate a decrease in facility-based deliveries, key informants (staff, VHVs and carers) in the four provinces and Port Moresby who were the sample for this review reported that there was increased awareness of the benefits of facility deliveries. VHVs appear to perform important roles in encouraging women to deliver in a facility, accompanying women to facilities, and in many cases assisting at delivery, staying with women in health facilities until they go home, and assisting

with postnatal care. However, geographic, transport and cultural constraints limited women's ability to access facilities when labour had commenced.

Some interviewees reported increased provision of maternal and neonatal health services arising from increased demand and referrals in specific provinces:

- EHP reported that facility-based deliveries have increased from 12 per month in 2018 to 20 per month in 2020, as the program was encouraging mothers *'to come to the health centre at least a month before they are due, and they are housed at the health centre and provided food and lodging for the duration of their stay until they deliver'*. Some interviewees in EHP did not report observed increases in utilisation of ANC or facility-based delivery, although they did note fewer referrals for retained placenta and PPH (which were being managed in lower-level facilities), and increased use of KC in hospital.
- Other provinces (i.e. WHP) also noted an increase in referring mothers to the health facilities for ANC and delivery, stemming from increased knowledge of CHWs and staff.
- In ENB, challenges to improving utilisation of health facilities were reported as: unavailability of waiting houses; costs of transport to higher level facilities; and reluctance of teenage mothers to attend health facilities for delivery.

(b) Enhanced health status of mothers and babies and increased survival of newborns

There is some evidence that the program has contributed to saving the lives of newborns and mothers through the application of potentially lifesaving interventions. The program claims to have saved nationally 1,529 babies from asphyxia since 2015 and saved 315 mothers through NASGs (205) and 110 high-risk mothers referred by VHV's.

However, while SLSS report data on the number of newborns who received EENC interventions (e.g. resuscitation of newborns with asphyxia, skin-to-skin (S2S) contact at birth, and KC for LBW newborns), data are not available on the number of newborns 'at risk' and in need of EENC interventions (i.e. the number of newborns with asphyxia, or the number of LBW babies born in facilities). Table 3 provides numbers of newborns receiving potentially lifesaving EENC interventions in 2020.

Table 3: Proportion of at-risk newborns receiving potentially lifesaving EENC interventions (2020)

| Details | WHP | EHP | ENB | Madang |
|---|----------------|----------------|----------------|----------------|
| Total births | 15,050 | 23,159 | 9,685 | 25,119 |
| Facility-based delivery (as % of total births) | 7,129 (47%) | 8,192 (35%) | 5,850 (60%) | 5,859 (23%) |
| Skin-to-skin (S2S) (as % of facility-based deliveries) | 6,047 (84%) | 6,116 (75%) | 3,805 (65%) | 3,054 (52%) |
| Kangaroo care | 502 | 1,864 | 906 | 1,517 |
| Neonatal resuscitation | 114 | 193 | 174 | 67 |

For **mothers**, the project reports on the number of mothers who received AMTSL, which is a potentially lifesaving intervention. This was reported in the second progress report as a total of 69,048 out of 80,368 deliveries in a health facility in the year to August 2020, which is approximately 85%.¹⁶ In addition, 205 women used the NASG when referred to higher-level facilities for treatment of PPH. This may also be lifesaving for the mothers involved, although this is likely to be only a small proportion of mothers who experience PPH. It is unclear what proportion of mothers with PPH who are referred to

¹⁶ SLSS Second Annual Progress Report 2020.

higher-level facilities received the NASG, but interviews with facility staff found that the NASG was not used widely among those who were trained and was rarely used in facilities.

Extent of coverage

Program reporting indicates SLSS reached 104,000 newborns with EENC in Phase 1 (72% of Phase 1 target of 144,000), and 96,350 mothers and newborns in Phase 2 as of December 2019. The program reports it is on track to cover all provinces and achieve the Phase 2 end-of-program target of 250,000 newborns by the end of Phase 2, but the review team were unable to verify these estimates. There is also some variation in the extent of receipt of interventions among women and newborns, with newborns born in the community reported to receive early postnatal care from VHVs or CHWs in the community following home delivery, while coverage of the full package of EENC, including care during delivery, is limited to those deliveries that occur in health facilities. As noted above, the proportion of facility-based deliveries has decreased over the period 2015 to 2020. This raises concerns about equity, as those unable to access health facilities (e.g. due to remoteness, or limited access to transport) are unable to benefit from EENC interventions.

2.2. KRQ2. To what extent has the program contributed to cost-effective service delivery?

Summary of key findings

SLSS focuses on prevention of major causes of neonatal illness and death (preterm delivery, asphyxia, and sepsis), plus examines home-based care for LBW newborns through KC as a cost-effective approach to improving neonatal health. This focus, together with efforts to maximise coverage of interventions, demonstrates relatively efficient use of resources. However, the cost effectiveness of some interventions such as BKK and NASGs needs further consideration.

EENC is a cost-effective approach to reducing neonatal mortality, as it applies low-cost interventions at the critical time of birth, thus preventing newborns from developing complications that would require intensive and costly care. The program also adopted some cost-effective approaches to implementation, including seeking to use and strengthen existing systems, and a focus on high-volume delivery facilities. However, the overall efficiency of this approach depends on these facilities having adequate resources, and there are potential equity trade-offs as the majority of women do not give birth in facilities.

The efficiency of the technology introduced (notably NASGs and BKK) is compromised by the high-cost, single use, and difficulty of sourcing replacements for the BKK. However, the potential to reuse the NASG contributes to efficiency.

The efficiency of the VHV program is more difficult to assess, as it was relatively costly (approximately one-third of total budget expenditure to establish programs in five districts), but it appears to provide a potential strategy to address at least some of the constraints to women receiving ANC, attending a facility for delivery, and receiving EENC interventions.

Recommendations

Refer to Recommendations 10, 11 and 12.

Care of LBW infants in health facilities incurs a high cost – both for families and health facilities – as long periods of hospital care may be required. The SLSS focus on prevention of major *causes* of neonatal illness and death (preterm delivery, asphyxia, and sepsis), plus promoting home-based care for LBW newborns through KC, is a cost-effective approach to improving neonatal health. Moreover, the program has adopted efficiencies in implementation including:

1. Using and strengthening existing systems, notably the training system and NHIS.

2. Focusing capacity building on high-volume delivery facilities, but at the cost of limiting capacity building at lower-level facilities that might have improved community access.

However, the cost effectiveness of this approach depends on adequate staff resources and supportive management and supervision. It also requires maximum use of low-cost services to prevent complications, rather than referral when complications occur.

Similarly, improving communication between the health services and the community, and improving access for the community to health services, contributes to cost-effective use of resources provided to health services. The VHV program is thus likely to be cost-effective but, like the training of health workers, requires adequate operational funds. The lack of ongoing operational funding and support for the VHV program – for example, through refresher training, communication materials, and supervision and continued incentives – may limit the cost effectiveness of the overall investment.

Care during pregnancy is important in reducing preterm delivery and LBW. The current low rates of access to ANC reduces the opportunity to improve care during pregnancy, or to detect potential complications. The VHV program emphasis on ANC has the potential to identify high-risk pregnancies early, to build trust between healthcare providers and mothers, and to encourage delivery in a health facility. The VHV program therefore supports the cost effectiveness of the EENC interventions provided in health facilities.

The cost effectiveness of individual interventions, such as BKK or NASGs, need to be considered in the context of how they are provided, and, in particular, the ongoing costs for replacement or maintenance. In the case of NASGs, the device can be reused (with washing between uses), and a single device can last a significant time. However, BKK are single-use devices. Replacement BKK are not readily available in PNG and have a relatively high cost. As a result, some provinces retain the BKK for use in SCNU in hospitals, where their use can save nursing staff time in monitoring temperatures. However, given that cheaper alternative devices are available to monitor newborn temperature (low-reading thermometers), it is unlikely that their use in SCNU is cost-effective; and the high cost of replacement also limits the cost effectiveness of their use in household management of LBW infants. There may be a role for BKK in training and raising the awareness of both staff and caregivers about the ease and frequency with which the temperature of LBW infants can fall, and thus encourage ongoing KC.

A broader assessment of value for money was not part of the Terms of Reference for this review and also limited by the absence of outcome data. Minimal expenditure data were also provided to the review team. The data considered suggest that the focus on strengthening the availability of key interventions within the PNG health system (including KC, EENC at birth, and resuscitation of newborns with asphyxia) was the right approach, but there needs to be greater emphasis given to addressing the structural constraints to facility-based delivery, as ultimately women who do not deliver in facilities miss out on interventions. While the review found the VHV strategy, necessary in the context of severe health worker shortages, was effective in promoting awareness of the importance of facility-based delivery and accompanying women in relatively close proximity to facilities to do so, it would need to be funded in the long term, alongside broader strategies to improve the coverage of facility-based delivery, to have a more significant impact in expanding coverage of these interventions.

2.3. KRQ3. To what extent is the program relevant, considering any changes in context?

Summary of key findings

SLSS, through addressing EENC and sexual and reproductive health (SRH), aligns well with DFAT's Health Portfolio Plan goal to reduce maternal and child mortality. SLSS also aligns well with GoPNG policies and plans, including the Newborn Health Policy 2014.

SLSS is one of the few DFAT programs that specifically addresses neonatal health. A stronger focus on neonatal health may be warranted in DFAT's future health planning.

COVID-19 has impacted SLSS's programming. Travel restrictions meant that training, supervision and monitoring visits have been postponed indefinitely since 2020. The program also did not specifically address continuity of service delivery through the initial period of COVID-19 restrictions. While the health sector continues to focus on control and response to COVID-19, the needs of mothers and newborns, as well as infants, have the potential to be neglected, and the SLSS program provides a potential vehicle for advocating for continuing to address their needs.

Recommendations

Refer to Recommendations 1 and 3.

2.3.1. Alignment with Australia's Health Portfolio

DFAT's PNG Health Portfolio Plan (2018–2023) focuses on the provision of targeted support to the GoPNG National Health Plan 2011–2020 (NHP). The three outcome areas of the Health Portfolio Plan are: (1) Health security and major communicable disease; (2) Strengthened systems for rural primary health care; and (3) Integrated family planning, HIV and sexual and reproductive health. Recognising the ongoing constraints to fiscal sustainability of health services, the Health Portfolio Plan focuses on completing foundational work in selected provinces and districts.

Under the Health Portfolio Plan, reductions in maternal and child mortality (under 5 years) are an overarching priority at the goal level. Maternal, neonatal and child health (MNCH) are addressed across Outcomes 2 and 3: antenatal care and integrated childcare are a component of Outcome 2, with a focus on *systems strengthening* through better utilisation of government finance and improved health worker recruitment and retention. Improvements to HIV integration, family planning and sexual and reproductive health (SRH) are a component of Outcome 3, with a focus on improvements in *service provision*.

Currently, the Health Portfolio Plan lists SLSS as contributing to Outcome 3, which is appropriate given its emphasis on supporting direct service provision. However, SLSS also contributes to Outcome 2 through its focus on systems strengthening¹⁷ for primary healthcare delivery, and the neonatal component of integrated child health, particularly given that SLSS's reach potentially extends to all provinces.

Where and how the contributions of SLSS to systems strengthening and service provision are captured in DFAT performance reporting is less clear. The current draft Performance Assessment Framework (PAF) does not list SLSS as a contributing investment at all, due to its relatively small budget within the Health Portfolio.¹⁸ This may also be a missed opportunity to include the contribution of SLSS to

¹⁷ For example, this includes efforts to support the role of Provincial Health Authorities in planning and coordinating decentralised MNCH services; improve the NHIS; re-skill and support the available health workforce in both government and non-government facilities; and improve pre-service EENC training.

¹⁸ The PAF focuses on bilateral investments and excludes smaller investments in an effort to remain 'lean'.

improving neonatal health as a contributor to the overarching goal of reductions in child mortality. This is particularly important as SLSS is one of the few DFAT programs that directly addresses neonatal health. Within the current Health Portfolio Plan, an increased focus on neonatal health as a major contributor to child mortality could be considered under the PNG–Australia Transition to Health (PATH) program.

2.3.2. Alignment with GoPNG Newborn Health Policy 2014

Alongside the National Health Plan, a number of policies and high-level strategies guide activities and expenditure for MNCH in PNG. These include the: Newborn Health Policy 2014; Integrated Management of Childhood Illnesses Policy 2014; NDoH National Maternal and Newborn Health (MNCH) Strategic Plan 2020–2025; and PNG Child Health Policy and Plan 2009–2020 (2015 update).

The National MNCH Strategic Plan takes a health systems approach and recognises there are a range of health system levers both within and outside health that are required to support improved access to quality integrated, people-centred care for reproductive, maternal, newborn and child health (RMNCH). The strategy focuses on investing in community level interventions such as awareness, education and communication, as well as supply-side health interventions, to improve the quality of care and extend the reach of service delivery.¹⁹ The strategy advocates for greater involvement of men in their family's health and health-seeking behaviour and calls for maternal and newborn health champions to drive changes in attitudes and behaviours.

The National MNCH Strategic Plan is based on the goal of ending preventable maternal and newborn deaths by 2030. Similarly, the goals of the PNG Child Health Policy and Plan are to reduce child mortality and to improve the general quality of health and development of the children of Papua New Guinea.²⁰ The IMCI Policy advocates for collaboration and coordination of activities to address treatable and preventable childhood diseases.²¹

These policies and plans aim to inform targeted and coordinated action to reverse the stagnating outcomes in maternal and newborn health, specifically accelerating reduction of neonatal mortality and morbidity. The stated purpose of the SLSS program broadly aligns with the specific objectives within these national maternal and newborn health strategies, policies and implementation plans.

2.3.3. Contextual changes and adaptations to COVID-19

The overall impact of COVID-19 on provision of health services included reductions in health funding, the diversion of resources to COVID-19 response work, and the impact of staff illness on facilities already understaffed pre-pandemic. It also reduced access to health services by pregnant women and their families (including referral to higher-level facilities) due to movement restrictions following the March 2020 declaration of State of Emergency; disrupted incomes reducing capacity to pay for health services; and created community fear of contracting COVID-19 from health facilities. As a result, ANC visits, facility-based deliveries, and the EENC indicators captured by the NHIS all showed a sharp decline between the first three months of 2020 and April 2020.²²

The most significant disruptions for the SLSS program were: (1) the inability to undertake health facility renovations; and (2) inability to conduct planned training and supervision/mentoring following training. Although it was proposed to provide this supervision by telephone/internet, there is limited

¹⁹ NDoH Maternal and Newborn Health Strategic Plan 2020–2025.

²⁰ PNG National Department of Health and Paediatric Society of PNG, Papua New Guinea Child Health Policy and Plan 2009–2020 (Updated 2015), 2015.

²¹ PNG NDoH 2015, Integrated Management of Childhood Illnesses Policy 2014.

²² NHIS Maternal and Newborn Care Services data as reproduced in UNICEF's Annex to the COVID-19 Situation Report, 2020, HDMES.

evidence that this occurred, or was a satisfactory substitution. The second COVID-19 wave in 2021 has meant that all provincial travel is suspended, effectively ceasing further rollout of SLSS activities to the 67 health centres targeted in 2021.

COVID-19 has the potential to particularly impact on pregnant women and the newborn, as a result of disrupted access to family planning services and increased unplanned pregnancies, potentially poorer nutrition during pregnancy, and reduced access to antenatal, delivery and postnatal care. The SLSS program provides a potential vehicle for advocating to continue addressing their needs.

While UNICEF provided a Business Continuity Plan for SLSS, no specific COVID-19 related interventions appeared to have been implemented through the program. This is a missed opportunity (also noting UNICEF's wider program of COVID-19 response in PNG).

According to interviewees, an important *indirect* contribution, however, appears to be the provision of a ready-made cadre of VHVs, who were used to good effect by district offices in EHP and ENB to assist in the dissemination of information about COVID-19 prevention and the 'new normal'.

2.4. KRQ4. To what extent have gender and disability inclusion principles been incorporated into the design and delivery of this program?

Summary of key findings

SLSS lacks a clear strategy for identifying gender and disability-related inequalities that limit participation in MNCH services and activities, and systematically addressing them. The approach of 'mainstreaming' gender and disability may have led to a dilution of effort. Specifically, identifying and addressing barriers that are particular to men's participation in MNCH services and activities, improving the access of mothers/babies with a disability to MNCH services, and documenting these changes, has been limited.

The lack of a more comprehensive GESI strategy for SLSS may have contributed to a lack of emphasis on activities to increase inclusivity and monitoring of inclusion outcomes.

Recommendations

Refer to Recommendations 2, 11 and 13.

2.4.1. Gender and disability inclusion in the SLSS design

At a minimum, DFAT requires investment designs to include specific analysis of key enablers and barriers to the participation of women and people with a disability in investment activities and outcomes. Based on this analysis, specific actions or articulation of a strategy to promote gender equality and disability inclusiveness throughout implementation are expected. Drawing on a 2014 study on gender equity and social inclusion in the PNG health sector²³, DFAT identified five key intervention areas that relate to maternal and child health:

- Increasing the value and priority on women's health to address high maternal mortality rate (MMR).
- Reducing gender-based and sexual violence that contributes to unwanted pregnancies.
- Addressing gender inequalities that limit access to health care (lack of male permission, lack of finances for transport costs, and inability to leave the family to access services).

²³ Butcher, K. Gender, Equity and Social Inclusion Assessment of the Health Sector in Papua New Guinea. Canberra: Health Resource Facility, Mott MacDonald, 2014.

- Addressing gender-based violence that limits female health worker capacity to perform duties.
- Addressing lower female rates of literacy that restrict access to health promotion materials.

The 2019 Taskforce on Maternal and Newborn Health also identified the important role of men's decision-making in delaying women's access to birth spacing and safe delivery. Of these areas, the SLSS proposal mostly addresses improving women's access to safe delivery and assisting women to access maternal health information and services. Men's greater participation is also 'encouraged'. While the UNICEF proposal document includes reference to the importance of gender roles, the level of analysis is minimal. It does not address gender-based or sexual violence in any specific way or teenage pregnancy, and strategies for involving men in all aspects of MNCH are not clearly articulated. Rather, the strategies to address the gendered implications of MNCH are more implicit in the design (i.e. through addressing maternal and child health as a female-specific issue) rather than explicitly detailed. The proposal outlines a 'mainstreaming' approach²⁴, and details a range of specific interventions to promote gender and social inclusion.²⁵

While these proposed activities provide more than adequate scope to develop a more targeted approach to gender and social inclusion, as well as budget for implementation, the program did not develop a specific Gender and Social Equity Inclusion (GESI) Strategy to identify and address barriers or inform specific aspects of implementation.²⁶ Perhaps as a result, progress on mainstreaming appears to have been hampered in some cases, or not adequately reported in others. For example, there does not appear to have been any further analysis on specific barriers to men's greater involvement in MNCH services or their crucial role in decision-making (which enables or prevents women's health-seeking behaviour for SRH, including during pregnancy or childbirth); there was no needs assessment of the knowledge and skills of health staff regarding provision of inclusive health services; it is not clear how the 'super dad' banners were used²⁷; the VHV training manual has very little focus on men's involvement in MNCH or how to promote it (although 'family members' are referenced); the planned use of mass media (TV, radio, and newspapers) to promote men's involvement is not well-reported; gender-disaggregation of data is only recently being addressed (e.g. in the 2020 Progress Report); there is no documentation of how service provision has been made more gender sensitive; and barriers to people with a disability to access services were not explored or addressed in any systematic way. The lack of focus by the SLSS design on disability screening is a missed opportunity.

2.4.2. Effective strategies for improving inclusion in service delivery

Annual progress reporting indicates limited activity in disability inclusion. Examples of disability inclusion activities, and gaps, noted by the review team include:

²⁴ Activities targeted for mainstreaming include: the design of case management and information systems; barriers and bottleneck analysis; and development of District Annual Implementation Plans for health worker capacity building.

²⁵ **Disability:** Develop health worker skills for screening and early detection of disability among high-risk newborns; disability-disaggregated data to advocate for services at provincial level; address disability-related barriers to generate demand for utilisation of services. **Gender:** Gender-disaggregated data collection; analysis of gender-related barriers and bottlenecks to inform development of gender responsive district development plans; technical support from UNICEF's Communication for Development (C4D) Specialist to ensure EENC messaging reaches both men and women; both VHVs and health workers are trained to provide gender-sensitive services and advocate for male involvement in safe motherhood and EENC (VHVs to use a variety of innovative media approaches to reach women and men).

²⁶ Rather, the program relies on the National Public Service Gender Equity and Social Inclusion (GESI) Policy (2013), which is not sufficiently nuanced to inform the type of health workforce and service delivery interventions that may be needed to improve equitable access and utilisation.

²⁷ Interviews indicate the current C4D Specialist was not involved in SLSS due to the requirements of responding to COVID-19. Examples of where messaging/materials lacked attention to inclusivity include: a second KC banner includes only mothers; *Bebi Kol Kilok* Program Checklist for Counselling of Caregivers explicitly refers to 'mothers, and what she should do'; promotional BKK posters depict a mother breastfeeding only; and the KC diary does not allow for disaggregation of caregiver gender.

- While SLSS included screening for disability among newborns, it does not consider identification of mothers with disabilities.
- Only two VHVs reported that they provide support to a person with a disability in their village.
- While there was training of 38 medical officers in retinopathy of prematurity, it is not clear whether this occurred under SLSS or a different UNICEF program (SLSS Progress Report, 2019/20).
- The most recent reporting indicates an intention to develop standardised tools for disability screening and incorporating the Washington Group Questions into VHV training in 2020; however, there was no indication that either has been progressed.
- VHVs reported they were trained to monitor LBW babies to refer for assessment of development delay and disability; however, it is not clear whether this is followed up with services and support.

Annual progress reporting on gender inclusion is also extremely limited across both phases, focusing mostly on describing the coaching of health workers and future *intentions* to undertake advocacy. Apart from that, male involvement in safe motherhood is reported as both a strategy and an outcome. The often-quoted evaluation of the BKK pilot reported mixed results²⁸ in this regard, with more evidence of increased men's involvement at the community level (through the VHV program) than at the hospital level. Specifically, 61% of 138 *women/mothers* interviewed reported the involvement of a male relative in newborn care, with 9% of 127 *VHVs* reporting increased involvement in KC from other family members. The report concluded that this may reflect a positive shift in gender roles, which is a notable achievement. The 2019/20 Progress Report suggested 27% of male family members are providing KC (p.28), but the data source or denominator population is not provided.

Despite health workers receiving targeted coaching in inclusivity principles through the in-service training, there was limited evidence their health centres were doing anything differently to make their spaces more user-friendly to men and women, or actively encouraging men's involvement.²⁹ The lack of appropriate facilities to accommodate both men and women either pre- or post-birth is reportedly one of the biggest barriers (in view of 4 interviewees). While this barrier is well recognised by SLSS, progress on the construction of the six special needs birthing facilities, with spaces to accommodate family members with appropriate privacy, is behind schedule, with none so far completed. In addition, while building waiting rooms (for families to use before and after birthing) is a potential activity in the VHV training manual, there was little evidence that any had been completed in the six VHV districts, with one (in EHP) reporting the receipt of materials but no means to construct it.

There is some evidence from the interview data that SLSS has contributed to changing cultural norms around men's involvement in facilitating referral to health facilities during delivery, caregiving to newborns, and increased awareness of family planning and birth spacing, and this may be a significant achievement. VHVs reported they had observed women choosing or gaining their husbands consent to use a modern contraceptive method. These changes are generally attributed to the activities of the VHVs. While the VHV training manual does not specifically focus on men's involvement in EENC or particular advocacy activities, it does appear that VHVs were encouraged to make open invitations to community-based awareness meetings (rather than specifically targeting men), and this has achieved some success – particularly in more remote villages where the interest in new information is higher. In addition to community meetings, delivery of messaging through house-to-house visits for ANC and PNC are perceived by VHVs to have had some impact on the behavioural change of male caregivers. Caregivers also commonly reported that VHVs engage directly with fathers when they are at home,

²⁸ Centers for Disease Control and Prevention, Evaluation of BKK Implementation in PNG, May 2019. The 47% increase in male involvement in newborn care reported in the BKK Preliminary Report Presentation and BKK Trial Factsheet does not appear to be included in the BKK evaluation data or report.

²⁹ One provincial hospital reported posting photographs of men doing KC in waiting rooms as a strategy. It is not clear whether these were the SLSS 'super dad' banners, as they were not referred to by any of the interviewees.

and this was most feasible when VHVs were based in the same village as the family and were able to visit at night.

'[SLSS has] changed some attitudes about male responsibility...Especially the emphasis on relatives helping to do the KC – a shift in cultural practice. Anybody in the family can provide warmth to the baby. ...This change has occurred through the VHV program.' (C2)

The lack of gender-disaggregation in the reporting of people reached and behaviours influenced has resulted in a missed opportunity to capitalise more on this potentially successful and influential outcome of the program. Interviewees confirmed that male participation is not routinely documented by VHVs or health centres.

'Fathers are coached, then this information spread to the men, so they are now holding their babies. A big change, but I can't say how widespread it is. ... The other districts don't have the VHVs....' (EH1)

'It's not widespread in the province yet.' (M3)

2.5. KRQ5. To what extent have the findings from operational research, monitoring and evaluation been utilised in programming, planning, learning and accountability?

Summary of key findings

M&E was assessed as 'barely adequate' against DFAT M&E Standards, as many components of a comprehensive M&E system are not evident. The SLSS has a Results Framework of largely quantitative indicators, but does not have a Monitoring, Evaluation and Learning (MEL) Plan. Many important elements of a comprehensive M&E system were not evident for this review. However, notable strengths included the use of partner systems; the attempt to assess reach/coverage; context and risk monitoring; and a costed budget.

The Results Framework is focused on quantitative outcome and output indicators, which, while largely fit for purpose for reporting of higher-level quantitative outcomes, provide insufficient detail on the achievement of intermediate outcomes to meet DFAT reporting needs. The quantitative approach has also led to an over-emphasis on program *reach*, without adequately examining whether it is addressing *equity of access, need or improving quality*.

Progress reporting is assessed as barely adequate. Weaknesses include poor tracking of inputs; limited analysis of progress (mostly descriptive reporting against activity); poorly substantiated claims; and limited analysis of barriers to progress and steps to overcome them.

While budget allocation for M&E activities was adequate (10%), it is underspent (5.7%), with a 'lean' staffing profile mitigating against more targeted, intensive inputs and improved reporting.

The desire to strengthen and use the NHIS for SLSS outcome reporting purposes was well-intentioned but may have been overambitious, with actual contributions not clear and SLSS not properly resourced to improve the quality of data collection from district to national level. While the addition of EENC indicators to the NHIS has been broadly appreciated by NDoH and provides a potentially valuable data source, there was limited evidence of the utility of this (or general program data) in efforts to strengthen EENC planning. The quality of NHIS data on which the program relies has been reported as poor quality and unreliable, with underreporting of neonatal and maternal deaths a persistent

problem. The stated focus on strengthening and using the NHIS to avoid parallel reporting, while commendable, is an immense challenge, and the SLSS is not resourced to make a significant contribution to changing the system.

Recommendations

Refer to Recommendations 1, 11 and 12.

2.5.1. Appropriateness of the M&E Framework

Phase 1 of the SLSS program was designed in accordance with One-UN systems and procedures. As an initiative funded by DFAT, Phase 2 has its own discrete set of indicators and reporting requirements to meet both United Nations (UN) and DFAT needs. The following appraisal has therefore been guided by DFAT Standards for Monitoring and Evaluation Plans, and Progress Reporting.³⁰ Data collection emphasises UNICEF's support to permanent management information systems – in this instance, the NHIS managed by the NDoH – rather than the creation of a parallel reporting system. The SLSS M&E system is reliant on sourcing its data from the NHIS primarily at *outcome* level; however, *output*-level reporting requires additional data to be drawn on from a variety of other sources. The quality of NHIS data on which the program relies has been described in a recent review as of poor quality, incomplete, unreliable and not submitted in a timely manner³¹, with underreporting of neonatal and maternal deaths a persistent problem.³² This has significant implications for the reliability of the outcome data, which SLSS has attempted to address.

The SLSS program does not have a specific Monitoring, Evaluation and Learning (MEL) Plan. As such, SLSS M&E arrangements are assessed as barely satisfactory against DFAT standards, as many important elements of a comprehensive M&E system are not evident. Notable strengths included the use of partner systems; the attempt to assess reach/coverage; context and risk monitoring; and a costed budget. Weaknesses include: the lack of monitoring and evaluation questions to guide data collection against achievement of intermediate outcomes; lack of rationale for the targets selected; as well as the lack of description of methods of data collection, tools and schedules (see Annex D for the full assessment). Importantly, for a program designed to 'produce evidence-based methods of practice', there are no plans for evaluating innovative approaches implemented under Phase 2³³ beyond an end-of-program review.

While the level of resource allocation for M&E appears adequate for the program (10% of total budget in Phase 2), information provided by UNICEF indicates that actual expenditure for the two years was 5.7%, and that many of the associated activities consisted of travel for routine mentoring and coaching of health staff with undefined monitoring purposes. Maintaining a 'lean' staffing level, means the program is constrained by a lack of dedicated and resourced staff to collect data, analyse and report.

Notwithstanding these shortcomings, the Results Framework *indicators* are assessed as relatively fit for purpose, allowing for a reasonable overview of program performance; however, greater clarity on their definition, denominator for populations, rationale for targets selected, and attribution to SLSS inputs could be strengthened (see Annex D, Table 3).

³⁰ See <https://www.dfat.gov.au/about-us/publications/Pages/dfat-monitoring-and-evaluation-standards>.

³¹ Anderson, I., & Martin, R. Independent Evaluation of DFAT's Multilateral Partnerships in the Health Sector of PNG, December 2017.

³² NDoH, Ministerial Taskforce on Maternal and Newborn Health Situational Analysis, June 2019.

³³ Noting that Phase 1 included a detailed evaluation of the BKK device, although whether this was planned from the outset is not clear.

2.5.2. Strengthening the National Health Information System

While SLSS initially planned to develop an online DevInfo-based dashboard for M&E³⁴, based on an NDoH decision, SLSS instead shifted focus to using and supporting the electronic NHIS (eNHIS).³⁵ SLSS has strengthened the NHIS by programming it to capture SLSS EENC data³⁶ and providing birth and KC register books to health facilities to aid data collection. The implications of this change on the capacity of the program to provide ‘real-time health performance information at the provincial level to plan, budget and deliver EENC’ were not elaborated; however, interviews with hospital and health centre staff indicated only limited interactions with NHIS data to inform planning to date³⁷, perhaps through lack of access to data or training on its effective use in planning.³⁸

The addition of the SLSS EENC indicators to the NHIS was seen as a significant achievement of the SLSS program by a notable number of interviewees (10). When questioned about their value-add to health system planning, however, benefits were mostly articulated by UNICEF interviewees, including linking community-based EENC interventions to health facility reporting; ensuring that EENC interventions are reported on a continuous basis; and ensuring that EENC activities continue to be implemented because they are being reported. While the addition of early initiation of breastfeeding (EIBF), S2S and KC indicators are potentially valuable for improving the utility of the NHIS data, these do not yet appear to include data from deliveries outside facilities. More importantly, the utility of an indicator on BKK use in an already overcrowded dataset is less clear – where usage prevalence may be more an indicator of availability than addressing need. In addition, although the UNICEF EENC Assessment Report (2017) noted that ‘while disaggregation of newborn deaths from under-5 child deaths is essential for tracking progress, most [hospital reports] do not separate [them]’. The Ministerial Taskforce Situation Analysis also identified the lack of reporting on newborn deaths in the routine NHIS reporting form, and this is a missed opportunity.

The stated focus on strengthening and using the NHIS to avoid parallel reporting, while commendable, is an immense challenge, and SLSS is not resourced to make a significant contribution. UNICEF indicated it is seeking alternative funds and possible collaboration with the Health Services Sector Development Program (implemented by the Asian Development Bank) to make further improvements to the NHIS. Reliance on it as the principal data source for outcomes reporting may have detracted from establishing additional fit-for-purpose data collection tools and processes for capturing other program-based data on the quality and extent of output achievement at the facility level.

2.5.3. Utilisation of program reporting for informing EENC planning

In reviewing the contribution of data collection and reporting to improving PHA planning and budgeting processes or meeting DFAT’s reporting needs, it is necessary to firstly address the issue of reporting *quality*. The SLSS program reports on progress principally through annual reports, which are provided to DFAT. There was little evidence these are provided to the DNPM or the NDoH (apart from those directly involved in compilation).

Progress reporting is assessed as barely adequate, especially for assessing progress towards achieving SLSS’s three outputs. Poor quality of reporting was also a notable theme in the interviews (from 6

³⁴ DevInfo is a database system developed to compile and disseminate data that supports informed decision-making. The DevInfo project is managed by UNICEF on behalf of the United Nations System.

³⁵ The eNHIS is using a tablet-based system to reduce error and improve timeliness of reporting; however, it is not yet fully rolled out across PNG and underreporting remains a common problem.

³⁶ Indicators on early initiation of Breastfeeding, Skin-to-Skin, KC, and the use of BKK.

³⁷ Indeed, one interviewee from a district health facility remarked that they don't get to see district-level data anymore, because eNHIS tablets send it straight to the provincial level, while another remarked ‘eNHIS is a good platform technically, but they still have the same data gaps as ever’.

³⁸ NDoH, Ministerial Task Force on Maternal and Newborn Health Situational Analysis, June 2019.

interviewees). Strengths included: providing contextual information; reflection on continued relevance; and some assessment of the adequacy of activity progress. Weaknesses principally relate to poor reporting of basic input data for both phases; outputs (lack of analysis of contribution of activities to outputs, and the reason for delays, changes or their implications); and outcomes (in particular, the source and make-up of data used to report against quantitative indicators) (see Annex D, Table 2). These weaknesses significantly lessen the utility of the reports and hampered the review of overall progress.

Despite this, there was some evidence that Phase 1 ad hoc reporting generated by the SLSS program was used with or by the NDoH for planning Phase 2.³⁹ In Phase 2, for example, data was used to differentiate between district performance in the planning of services; and useful data was circulated from SLSS reporting to colleagues in the CHAC meetings. It was not possible to ascertain which information had been most useful, or how it had been used in AIP preparation, as the quantitative indicator or associated activity reporting did not include this detail and interviewee interviews were inconclusive.

'The most important [data] is the number of babies accessing the service – mothers bringing the babies in ... And children appropriately referred to higher facilities.' (EH3)

2.6. KRQ6. To what extent are the positive changes and effects sustainable after the completion of the SLSS program?

Summary of key findings

In terms of **Output 1: Strengthened political commitment to EENC**, while SLSS has successfully increased political commitment to MNCH and EENC, this has yet to translate into increased GoPNG resourcing. The likelihood of increased domestic resources being available is also likely reduced given the economic downturn associated with COVID-19. This poses considerable challenges for future training, supervision and mentoring activities, support for the VHV program, and the continuation of technologies introduced in the program, which are dependent on ongoing resources and require long-term commitments.

Partnerships developed with the professional associations and team of clinical leads at the national level have resulted in changes to the training curriculum and integrating neonatal health indicators into the NHIS, which is a strong strategy for sustainable developments. These groups can continue advocating and providing technical assistance on improving systems and processes for maternal health and EENC at all levels of health facilities.

In terms of **Output 2: Increased capacity of health facilities to provide EENC**, a key SLSS sustainability strategy has been training of master trainers who can subsequently train health workers at Level 1 and 2 health facilities. The master trainers are well placed to continue supervision and mentoring of health workers at lower-level health facilities but require ongoing funding for transport and visits.

The provision of technologies such as the BKK, NASG, and EENC equipment have been central to the SLSS strategy to improve EENC. The ongoing supply of these technologies is a challenge, with no clear mechanisms for procuring these without SLSS support.

³⁹ In particular the findings of the BKK evaluation were useful, though perhaps inconclusive, and hospital-level data was used in the Annual Implementation Review and Planning workshop, May 2018.

In terms of **Output 3: Communities have better understanding of the importance of EENC**, SLSS has successfully mobilised and retained a large cohort of VHVs; however, ongoing resourcing is required for providing training, equipment and other support (e.g. travel costs) to VHVs.

Recommendations

Refer to Recommendations 4, 5, 6, 9, 10 and 12.

2.6.1. Sustainability of Output 1: Strengthened political commitment to EENC

Since the launch of SLSS, UNICEF has advocated for upscaling of MNCH initiatives, and engaged senior government ministers including the Prime Minister in SLSS (refer to Section 2.1). This has helped raise the profile of the program and the importance of MNCH and EENC across the country. Key informants reported that this approach has increased interest within local health authorities and led to new commitments to upscale MNCH initiatives, which UNICEF described as *'crucial for creating momentum to promote and scale up EENC interventions through a collaborative approach'*⁴⁰, although these commitments are yet to be matched with increased resources (refer to Section 2.1). The likelihood of increased domestic resources being available is also likely reduced given the economic downturn associated with COVID-19. This poses considerable challenges for future training, supervision and mentoring activities, support for the VHV program and the continuation of technologies introduced in the program, which are dependent on ongoing resources and require long-term commitments.

Partnerships developed through the SLSS program have also extended to academic institutions and professional bodies, and training institutions. The program has engaged a core team of MNCH specialists who also have links to the professional associations and national clinical advisory groups. The team has influenced key policies for training of the MNCH workforce and helped to advise the NDoH, professional associations, and training institutions on important MNCH issues. Examples of promising contributions to sustainability include: the inclusion of an EENC module in the pre-service training curriculum; and the addition of new indicators for EENC in the NHIS reporting system.

2.6.2. Sustainability of Output 2: Increased capacity of health facilities to provide quality EENC services

Training post-tests of health workers indicate some skills and knowledge transfer from in-service training, and that some elements of EENC were practised post-training. However, interview data suggests the continued practice of these skills was limited in some health facilities and locations due to lack of adequate equipment, space in the labour wards, and staff time. Some interviewees reported that training on neonatal resuscitation, KC and delayed cord cutting were the most useful components of the training. The training on breastfeeding, S2S, and use of the NASG and BKK were not consistently practised post-training, and depended on the availability of hospital beds, confidence of individual health workers and time constraints. Barriers to skills transfer and capacity building noted by interviewees included limited human resources and lack of time.

In terms of improved capacity to report, little improvement was noted post-training, with some health facilities submitting reports very late, while others did not prioritise reporting at all – largely due to the lack of supervision and follow-up visits. Further, they also noted that since reporting has been centralised through NHIS, health workers do not receive reports back on the data they submit. One VHV mentioned that they were trained in how to manually record birth data; however, they were provided with a limited number of data sheets to complete the data entry. Once this supply was exhausted, they continued with verbal reports to the staff at the health facility.

⁴⁰ UNICEF Situational Analysis 2020.

The training of a group of provincial master trainers to scale up EENC training (108 in Phase 1 and 74 in Phase 2) has been a key strategy for sustainability. These master trainers are well placed to carry out further training, mentoring and supervision. However, as noted above, it is not known the extent to which refresher training or supervision will be ongoing, with budget for transportation a significant barrier, to enable skills to be consolidated and furthered beyond those attending initial training. Additionally, without the ongoing supervision visits there is no clear measure for reporting or monitoring skills transfer. It is unclear how health workers who have received training are supported in their respective health facilities to practise these skills.

'It was expected that these trainees would train their own staff, but not many did.'(EH1)

'Although the trainings were successful in the cities, the majority of the population is in the village. ...Many people in the health centres are ageing staff and the training has not reached them.' (D1)

'Training was conducted in 2016 for 10 provincial trainers.... There was nothing left over for me to do the supervisory/mentoring role outside [town]. Since then, only 2 districts were visited by [trainer] and only once. None of the provincial trainers have done any follow up as far as I know.' (M3)

The provision of technologies such as the BKK, NASG, and equipment to support EENC (neonatal resuscitation equipment and KC kits), have been central to the SLSS strategy to improve EENC, yet the ongoing supply of these technologies is a challenge. Key informants reported that existing supplies were initially provided by the SLSS program, and they were unsure of how these supplies would be replaced once the program ceased. Some health facilities had requested additional funding to procure more equipment; however, the PHAs do not necessarily know where to procure them. Additionally, many interviewees noted they needed to request replacements from UNICEF, as there were no alternative procurement mechanisms for BKK and NASG as outlined in the following quote.

'I think we will keep doing the application of NASG garment. But if we run out, we won't get more. We are only using the ones UNICEF supplied, the government can't procure them. We should do everything that was introduced but we don't have the things we need to do them so we can't.' (E5)

2.6.3.Sustainability of Output 3: Communities have better understanding of the importance of EENC

The SLSS program has successfully mobilised a large cohort of VHVs. The VHV model in PNG was intended to vertically integrate VHVs as part of primary care teams linked to community systems, rather than 'EENC-specific' volunteers. Provincial and district health officials and UNICEF staff (based at the district level) have engaged health workers in rural health services to support VHVs in their health promotion, community linkage and referral roles. The SLSS program has achieved the target for proportion of VHVs with adequate knowledge and skills on communication and counselling to support maternal and neonatal service delivery in the seven districts that the VHV program has reached. The VHV program's success is evidenced by parent and caregiver feedback, the observed increase in attendance at facilities for delivery, and reportedly high levels of trust within the community, and support to health facility staff. Additionally, the VHV program has retrained and built capacity among women who were already trained as village birth attendants or were informally assisting deliveries in the village, with some evidence of changes in practices, particularly around bringing women to facilities during labour.

'The VHVs have made a big contribution in the referral system, but their sustainability needs to be considered (by the province); i.e. a system to register the VHVs by the LLG/district, combined by the district, so that we appreciate and recognise them by giving them incentives.' (NB2)

Lessons from VHV programs in different countries indicate that continuing adequate support, and refresher training to maintain and update skills, are important for maintaining performance and motivation of VHVs.⁴¹ In this regard, the BKK evaluation (2018) highlighted that: 73% of VHVs in EHP noted transportation was a challenge; 58% noted communication was difficult in the area; and others noted that they may need additional training on community-based EENC.⁴² VHVs reported similar challenges related to transport and lack of opportunities for training. Birthing kits, KC kits, and basic equipment were supplied to VHVs when they completed the VHV training. VHVs found these useful but noted they were not replaced once the initial supply was exhausted. The VHVs reported that they felt supported by their communities and the health facilities' staff and management. They did not expect remuneration and the majority reported feeling supported by their family and local community (87%, n=36). There were some examples of negative feedback from community members who felt that the VHVs were encouraging women to attend health facilities because of the misconception that the VHVs were paid to do this and there was hesitancy to deliver in facilities due to costs.

Anecdotal reports of VHV dropout rates (i.e. those that have been trained but no longer volunteer as VHVs) noted family responsibilities and the need to earn money for their family as the main reasons for those who discontinue working as VHVs.

Future sustainability is dependent on addressing these issues to manage VHV motivation, ensure ongoing training and supervision, and address uncertainties about financial support.⁴³ It is unclear whether the PHAs have funding available to support the current numbers of VHVs.

⁴¹ Kulle 2017.

⁴² UNICEF Annual Report 2020.

⁴³ Ekirapa-Kiracho, E., Namazzi, G., & Tetui, M. *et al.*, 2016.

3. Conclusion and Recommendations

3.1. Conclusion

There is a clear need for health system strengthening efforts focused on improving maternal and neonatal health outcomes in PNG, where mortality rates are currently off track to meet the Sustainable Development Goal targets. This review found that the SLSS program is highly relevant to this context and that it demonstrated effectiveness at improving the availability of key maternal and neonatal health interventions within existing mid-level primary care facilities and supporting women to give birth at those facilities.

However, a key constraint to SLSS's effectiveness is that access to EENC services remains limited to women delivering in health facilities, and this proportion has declined between 2015 and 2020 in provinces where SLSS was implemented. Moreover, delivery of EENC continues to be impacted by broader health system constraints not addressed by SLSS, such as insufficient staffing, poor infrastructure and ongoing issues with re-supply of equipment and supplies – all of which threaten the sustainability of SLSS's achievements.

Advocating for political commitment at the national and provincial level is an appropriate response to addressing sustainability, and the program has seen some success in raising the profile of neonatal health needs. However, translating political will into budgetary commitment has been less evident, and within the current fiscal context, is likely to be an ongoing challenge. To have a more significant impact on population health outcomes, the SLSS program would need to be funded alongside broader strategies to improve the coverage of facility-based delivery.

Detailed recommendations for UNICEF, DFAT, and GoPNG NDoH for the remainder of the program and in the longer term are presented below.

3.2. Recommendations for the remainder of the program

Recommendation 1: DFAT approve a no-cost extension, and UNICEF/NDoH consolidate and refocus activities to better respond to COVID-19 impacts on EENC services and safe delivery, such as:

- Provision of information to providers on the importance of continuing to provide antenatal, delivery and postnatal care, and on precautions/protocols to reduce the risk of transmission of COVID-19 during provision of these services.
- Increased education to pregnant women and their families on the importance of accessing and using these services, and on how to reduce the risks of transmission of COVID-19 during use of these services.
- Provision of adequate personal protective equipment to high-volume delivery facilities, and VHVs provided with targeted equipment such as KC kits.

SLSS has been significantly impacted by COVID-19 in reaching its proposed targets. Further rollout of training, supervision or monitoring visits have been postponed indefinitely since 2020. The program did not specifically address continuity of the provision of services through the initial period of COVID-19 restrictions. As health services and support shifts towards control and response to COVID-19, the needs of mothers, newborns and infants have the potential to be neglected, and the SLSS program provides a potential vehicle for continued advocacy to address their needs.

Recommendation 2: UNICEF should invest in additional M&E resources, including:

- Clarifying outcome indicator definitions and improve transparency on their data sources; strengthening output reporting to better reflect their achievement in terms of progress towards outputs/outcomes and how barriers will be addressed; and improving all input monitoring to improve clarity of intervention coverage.
- Considering how specific innovations of interest will be monitored and evaluated. Design for and introduce additional monitoring tools and methods to begin collecting data on promising approaches (for example, the impact of the VHV approach on changing male behaviour).
- Further specific studies to assess the use, impact and sustainability of the NASG. This will inform and support advocacy for future adoption in PNG as part of NHIS strengthening efforts.
- Supporting the NDoH to undertake holistic perinatal death audits and integrate reporting on all neonatal deaths into the NHIS.

The program does not have a detailed M&E Plan that includes key M&E questions, indicators and targets that could be used for planning, reflection and learning. This mitigates against efforts to evaluate and showcase the results of innovative approaches and technologies in PNG. While the program has commendably integrated reporting on neonatal interventions into the NHIS, reporting of key outcomes including neonatal deaths has not been included. NDoH requires support to integrate reporting on all neonatal deaths into the NHIS.

3.3. Recommendations for UNICEF and NDoH, longer term**Recommendation 3: At the national level – Strengthen coordination and communication among development partners and GoPNG agencies engaged in health, especially with other UN agencies. Provide greater support to adapt the UNICEF/WHO regional EENC guidelines to the PNG context for provision to PHAs.**

While UNICEF has a strong partnership with NDoH and other national leaders, partnerships with other global actors with mandates in maternal and/or child health have not been maximised in the implementation of the SLSS. A coordinated approach among development organisations supporting the NDoH could strengthen advocacy and support the NDoH's leading and coordinating role.

UNICEF advocacy has been effective in increasing the awareness of the importance of MNCH and EENC across the country, but this has not translated into commitments to increase resources for MNCH. Sustained financial support will likely be needed for interventions that are added to those funded by the national health system until there is greater predictability with respect to the financing system, as discussed further under Recommendation 4.

Recommendation 4: At the provincial level, consider how the program can help strengthen key relationships within provincial government, PHAs, provincial hospitals, and Members of Parliament. Strengthening these relationships through advocacy for EENC support is likely to have greater impact on allocative decisions around financing than a narrow focus on formal governance mechanisms.

There is some evidence that the SLSS program has effectively engaged with the PHAs and helped to strengthen relationships between provincial officials; however, the formation of provincial child health committees was not sustained. Strengthening informal relationships, rather than formal committees, might be more sustainable in the long term.

There is also evidence that the SLSS provincial planning process for child and newborn health has improved, although has not yet resulted in increased resources. The availability of domestic resources for health is likely to be reduced and this poses considerable challenges for future training, supervision and mentoring activities, support for the VHV program and the continuation of technologies

introduced in the program. Greater emphasis could be placed on understanding how priority decisions are made when financing is made available.

Recommendation 5: Continue supporting the master trainers to conduct supervisory and mentoring visits to ensure optimal application of new skills and support health workers to provide COVID-19-safe services.

- Explore feasibility of remote supervision where regular visits may not be possible.
- Improve reporting feedback on application of skills by trained health workers and achievements in health facilities.
- Continue exploring e-learning approaches to supporting health workers once trained.

SLSS improved pre-service and in-service training, which interviewees perceived had led to improvements in the quality of care. Improvements in quality of maternal and neonatal care are likely to have been achieved through the program's efforts to address key constraints in terms of skills and knowledge of existing staff, and availability of equipment, required for provision of EENC.

The master trainers are well placed to continue supervision and mentoring of health workers at lower-level health facilities but require ongoing funding for transport and visits. This is essential for the training of trainers model to work. Capacity improvements have been limited by constraints in other important elements of the health system that were not addressed in the design. These included the availability of sufficient staff, and lack of funding for travel of supervisors and trainers to follow up and support trainees in their workplaces.

Recommendation 6: Explore mechanisms for audit, maintenance and replacement of equipment and supplies provided, including the safe delivery kits, KC kits, resuscitation equipment and NASGs.

Undertake further specific studies to assess the use, impact and sustainability of the NASG to inform and support advocacy for future adoption in PNG as part of NHIS strengthening efforts.

There are ongoing issues with re-supply of equipment and supplies. The efficiency of the technology introduced (notably the NASG and BKK) is compromised by the high cost, single use and difficulty of sourcing replacements for the BKK. The potential to reuse the NASG contributes to efficiency.

Recommendation 7: Consider mechanisms to sustain the VHV approach, and to provide recognition or support for their contribution.

The SLSS program has achieved the target for proportion of VHVs with adequate knowledge and skills on communication and counselling to support maternal and neonatal service delivery in seven districts.

The VHV program's success is evidenced by parent and caregiver feedback, and reportedly high levels of trust within the community, and support to health facility staff. While the VHV program was relatively costly, it appears to provide a potential strategy to address constraints to women receiving ANC, attending a facility for delivery, and receiving EENC interventions. Many VHVs are committed to continue their role but receive little recognition or reward from health authorities. A majority of community members who have contact with VHVs value their contributions, but awareness about their role and incentives for the work they do need to be promoted widely in the community.

3.4. Recommendations for DFAT, longer-term

Recommendation 8: Increase focus on supporting MNCH specifically within the Health Portfolio Plan to build on its increased profile in PNG and on the investments in the SLSS, noting that longer-term support for the EENC initiatives is likely to be necessary.

This could be reflected by including a more explicit focus on EENC as a component of sexual and reproductive health under the current PATH design and including a relevant indicator on improving neonatal health outcomes in the PAF. The intended focus on integrating assistance with PHA management should also incorporate the EENC approach into strengthening integrated health service provision.

The SLSS is broadly well aligned to DFAT's ambitions to achieve reductions in maternal and child mortality through addressing EENC and sexual and reproductive health. While the SLSS is targeted to neonates, the focus on care during pregnancy and delivery will contribute to reduction in both neonatal and maternal mortality. This contribution may be missed in the current draft PAF, and a stronger focus on neonatal health may be warranted in DFAT's future health planning, such as in the PATH program.

Recommendation 9: Address supply-side barriers to consider how the program can facilitate and leverage broader efforts to strengthen primary health care, such as efforts to address the health worker shortage in the provinces and districts, outside of a specific focus on MNCH.

Explore ways to extend assistance to lower levels of health facilities to strengthen the referral system/address geographical barriers to achieve greater equity of access. Undertake a cost-effectiveness study to cost and compare alternative strategies to: (a) maintain delivery of EENC services; and (b) increase access of the population at need to these services.

EENC is a cost-effective approach to reducing neonatal mortality. The program also adopted some cost-effective approaches to implementation, including seeking to use and strengthen existing systems, and a focus on high-volume delivery facilities, although the overall efficiency of this approach depends on these facilities having adequate resources. There are potential equity trade-offs. The full package of EENC is limited to those women delivering their babies in health facilities, and this proportion has not increased over the period of the program. Lack of funding for referral transport, human resources and workforce distribution, and ongoing issues with re-supply of equipment and supplies, also impact access to EENC.

Recommendation 10: Support the GoPNG to implement the VHV policy, with support from UNICEF and other implementing partners.

The VHVs are a valuable resource for the health service, and frequently work for no reward or very little reward from PHAs and health facilities. A majority of community members who have contact with VHVs value their contributions, but awareness about their role and incentives for the work they do need to be promoted widely in the community. The SLSS program has been able to build on this existing resource of VHVs and strengthen its engagement, but the sustainability of these efforts is threatened by lack of ongoing support.

Recommendation 11: Approval of future investments by DFAT in the safe motherhood/EENC area should require development partners to provide more detailed GESI strategies, including:

- Specific analysis of underlying barriers restricting access by women, including women with a disability.
- Considering the impact on increasing the survival rates of LBW babies on the incidence of developmental delays or disability, and how these are screened and addressed.

- Integrating GESI activities into monitoring and evaluation plans.

The program lacks a clear strategy for identifying gender inequalities that limit access to health care and lacks documentation of particular barriers to men's participation in MNCH services and activities or improving the access of mothers/babies with a disability to MNCH services. More specific analysis and activities are needed to address the underlying barriers restricting access by women, including women with a disability to safe motherhood and EENC services; as well as the socio-cultural barriers to men's greater involvement; and the role of gender-based and sexual violence (particularly in relation to unwanted pregnancies). The inclusion of GESI activities is needed into monitoring and evaluation plans.

Recommendation 12: For future EENC programming, DFAT should convey to multilateral development partners the expectations of M&E Plan quality – especially as a strategic management tool rather than a means of routine reporting, and M&E Frameworks should comply with current DFAT standards.

Overall reporting on progress towards achieving outputs is weak, including poor tracking of inputs; limited analysis of progress (mostly descriptive reporting against activity); poorly substantiated claims; and limited analysis of barriers to progress and steps to overcome them. The desire to strengthen and use the NHIS for SLSS outcome reporting was well-intentioned, but may have been overambitious, with actual contributions not clear and the SLSS not properly resourced to impact quality data collection from district to national level.

Annexes

Annex A: Project data on key inputs and outputs by phase, location, and reporting year

Table 1. Provinces covered by phase, and health care workers trained in Phase 1 and 2

| No. | Province | No. of Birthing Facilities | No. of High Delivery Load (>25/yr) Birthing Facilities* | No. of Health Facilities Supported | No. of Health Care Workers Trained in Phase 1 | No. of Health Care Workers Trained in Phase 2 |
|-----|-----------------------------------|----------------------------|---|------------------------------------|---|---|
| 1 | Madang | 48 | 26 | 26 | 14 | – |
| 2 | Jiwaka | 27 | 11 | 11 | 98 | – |
| 3 | Eastern Highlands | 35 | 26 | 30 | 187 | – |
| 4 | Central | 31 | 16 | 16 | 59 | – |
| 5 | Gulf | 21 | 10 | 15 | 40 | – |
| 6 | Western Highlands | 31 | 25 | 25 | 106 | – |
| 7 | West Sepik | 36 | 18 | 18 | 30 | – |
| 8 | Autonomous Region of Bougainville | 29 | 16 | 13 | 32 | – |
| 9 | National Capital District | 20 | 1 | 1 | 114 | – |
| 10 | Simbu | 36 | 29 | 29 | 72 | – |
| 11 | East Sepik | 40 | 19 | 19 | 37 | – |
| 12 | Western | 42 | 13 | 29 | – | 50 |
| 13 | Southern Highlands | 43 | 24 | 24 | – | 79 |
| 14 | West New Britain | 32 | 19 | 20 | – | 52 |
| 15 | Hela | 29 | 19 | 5 | – | 12 |
| 16 | Enga | 37 | 13 | 18 | – | 34 |
| 17 | Morobe | 52 | 26 | 3 | – | 11 |
| 18 | New Ireland | 30 | 29 | 27 | – | 94 |
| 19 | Manus | 13 | 5 | 13 | – | 31 |
| 20 | East New Britain | 32 | 22 | 20 | – | 63 |
| 21 | Milne Bay | 41 | 38 | 10 | – | 16 |
| 22 | Oro | 20 | 8 | 10 | – | 27 |
| – | PNG Totals | 725 | 413 | 382 | 789 | 469 |

*Note these are totals.

Table 2. Available breakdown of selected activities by province/year

| No. | Province | Provincial AIPs facilitated | Facility Upgrades | Child Health Advisory Committee Convened | VHV Program Established | BKK Distributed | NASG Distributed |
|-----|-----------------------------------|-----------------------------|---|--|-------------------------|-----------------------|------------------|
| 1 | Madang | AIP | Modilon General Hospital (SCNU plans only?) | 2020 | – | 150 | 5 |
| 2 | Jiwaka | AIP | – | – | – | 180 | 4 |
| 3 | Eastern Highlands | AIP | Mt Hagen Provincial Hospital (Renovations) | – | Henganofi (2017) | (Received in Phase 1) | 5 |
| 4 | Central | – | – | – | – | 30 | 5 |
| 5 | Gulf | – | – | – | – | 50 | 5 |
| 6 | Western Highlands | AIP | Solar/wind 2018/19, Tambul District Health Centre (completed) | 2019/2020 | Tambul (2018/19) | 300 | 10 |
| 7 | West Sepik | – | – | – | – | 100 | 3 |
| 8 | Autonomous Region of Bougainville | – | – | – | – | 40 | |
| 9 | National Capital District | – | – | 2020 | – | (Received in Phase 1) | 3 |
| 10 | Simbu | – | – | – | – | 200 | 3 |
| 11 | East Sepik | – | – | – | – | 100 | 3 |
| 12 | Western | – | – | 2019 | South Fly (2018/19) | 50 | 15 |
| 13 | Southern Highlands | AIP | – | 2020 | Imbongue (2019/20) | 200 | 8 |
| 14 | West New Britain | – | – | – | – | 50 | 6 |
| 15 | Hela | AIP | Solar/wind 2018/19 | 2020 | Koroba (2018/19) | 150 | 10 |
| 16 | Enga | – | – | 2019 | – | 150 | 7 |
| 17 | Morobe | – | – | 2019/2020 | – | – | 2 |
| 18 | New Ireland | – | – | 2019/2020 | – | 50 | 6 |
| 19 | Manus | – | – | 2019 | – | 50 | 1 |
| 20 | East New Britain | AIP | Solar/wind 2018/19 | 2019/2020 | Pomio 2019 | 100 | 10 |
| 21 | Milne Bay | – | – | – | – | 50 | 7 |
| 22 | Oro | – | – | – | – | – | – |
| – | PNG Totals | 7 | – | 11 | 7 | 2,000 | 125* |

*NASGs include 2 to St Johns; 1 to North Solomons; 2 to Nursing and Midwifery Schools.

Table 3. Staffing inputs – Phase 1 and 2

| Staffing | Phase 1 | Phase 2 | Role | Duration |
|---|-----------------|--------------------|--|----------|
| Health Specialist | 1 | 1 | Overall program management at UNICEF | 5 years |
| Health Officer | 0 | 1 | Support to program implementation at UNICEF | 2 years |
| National Consultants (PNG) | 2* | 1 | Technical Adviser support to NDoH for ongoing implementation and supervision of program at all levels | 5 years |
| International Consultants (External) | – | 1 | Support to KC introduction and training | – |
| Regional and HQ M&E support | – | CDC Atlanta | Evaluation of BKK overall design and implementation of the evaluation | 5 months |
| Surge support from UNICEF New York Headquarters | – | Team from New York | Emergency surge support during the period of response to the earthquake in 2018 | – |
| Bethany from UNICEF Australia, Ali for M&E support from regional office | Regional Office | Regional Office | Ongoing program implementation support from colleagues in UNICEF Australia, Regional Office and Headquarters | Ongoing |

*2 National facilitators/mentors were also hired in Phase 1; cost of VHV coordinators and Touching the Untouchables (TTU) also included as staff.

Table 4. Capacity building activities in four selected provinces

| Activities by Province | Western Highlands | Eastern Highlands | East New Britain | Madang |
|---|---|--|---|---|
| No. of Districts | 4 | 8 | 4 | 6 |
| Facilities Providing MNCH Services | 2 hospitals 4 health centres 18 health sub-centre 4 health post 28 facilities 25 high-volume delivery loads (HVDL) | 2 hospitals 5 health centres 25 health sub-centre 1 community health post 33 facilities 26 HVDL | 1 hospital 2 rural hospitals 9 health centres 27 health sub-centre 39 facilities 22 HVDL | 1 hospital 2 rural hospitals 3 urban clinics 20 health centres 25 health sub-centre 51 facilities 26 HVDL |
| Staff Available | 22 Medical Officer (MO) 13 Health Extension Officer (HEO) 217 Midwife/Nurse (MW/N) 293 Community Health Worker (CHW) | 28 MO 15 HEO 222 MW/N 371 CHW | 19 MO 23 HEO 254 MW/N 257 CHW | 22 MO 28 HEO 223 MW/N 390 CHW |
| Deliveries 2020 | 15,050 7,129 in facilities (47%) | 23,159 8,192 in facilities (35%) | 9,685 5,950 in facilities (60%) | 25,119 5,859 in facilities (23%) |
| Staff Trained through SLSS | 106 staff from 32 health facilities = 46% (HEO, MW/N) | 187 staff from 38 facilities = 79% (HEO, MW/N) | 63 staff from 32 facilities = 23% (HEO, MW/N) | 182 staff from 44 facilities = 65% (HEO, MW/N) |
| Facilities Equipped through SLSS | 30 = 100% | 38 (>100%) | 32 Pomio Rural Hospital solar power Provincial Hospital SCNU upgraded | 43 Gusap Health Centre & Provincial Hospital delivery rooms |

Data source: NHIS 2020 MNCH reports; project summaries for 4 selected provinces provided by SLSS, February 2021.

Table 5. Activity implementation data from Phase 1 and Phase 2 Progress Reports, including data gaps

| Activity | Achieved in Phase 1 Cumulatively | Reported Achievements Phase 2, Year 1 to Sep 2019 | Reported Achievements Phase 2, Year 2 Sep 19–Aug 2020 | Cumulative for Phase 1 and Phase 2, Data Gaps and Comments |
|--|----------------------------------|--|--|--|
| Provinces reached | 11 provinces | 7 additional provinces | 4 additional provinces. | Phase 1 provinces continued receiving targeted support. |
| Child Health Advisory Committees | – | 7 provincial CHACs established | 4 additional CHACs. | 11 cumulative (reported as 8 in 2020; 4 of this double-counted from 2019). |
| Provincial/District Activity Implementation Plans facilitated | – | AIP in 6 of the 7 provinces and districts. (Facilitating in seven provinces, 4 districts Oct/Nov 2019) – includes budgeted EENC activities (not named). | Reported again in 2020 – unclear if it's an additional 6, as provinces not named in either report. | 6 or 7 cumulative? |
| Health facilities supported | 195 health centres supported | EENC/PPH in 359 health centres (from 290) in 20 provinces (including BKK and NASG); i.e. added 69 in Year1. When were the other 95 covered? | Expanded to 23 + 359 = 382 facilities. | 382 facilities. Assume 'supported' means they received either training, equipment, or both. |
| Upgrades to facilities/SCNUs | – | Facility assessment of 6 out of 7 provincial hospitals completed: drawing, design, and estimates for renovations and repairs of the SCNU, KC unit, labour ward and postnatal ward in Mt Hagen Provincial Hospital, Modilon General Hospital, and Tambul Nebilyer District Health Centre. | Tambul Nebilyer District Health Centre (completed); Mt Hagen Provincial Hospital (renovations); completion of SCNUs reported as challenging to deliver, without further elaboration. | SCNU completion reported in results table as 0. Unclear how many facilities have received repairs/renovations. |

Training-related activities

| Activity | Achieved in Phase 1 Cumulatively | Reported Achievements Phase 2, Year 1 to Sep 2019 | Reported Achievements Phase 2, Year 2 Sep 19–Aug 2020 | Cumulative for Phase 1 and Phase 2, Data Gaps and Comments |
|--------------------------------------|---|--|---|--|
| Training curriculum/materials | – | EENC practicum training has been integrated in the pre-service training curricula for nursing, midwifery, and CHWs in PNG. Training materials printed and distributed. | E-learning module not progressing. A free Safe Delivery app with EENC care has been identified for future training. | Unclear the implication of changes to the e-learning module in improving reach of support to training. |
| Provincial facilitators | 108 provincial facilitators; plan to train 31 from Nursing/MW/CHW schools as master trainers in EENC module | A pool of 74 trainers in seven provinces. | Led by a team of 4 provincial trainers. | Total provincial trainers/master facilitators unclear. Assume 108 + 74. |

| Activity | Achieved in Phase 1 Cumulatively | Reported Achievements Phase 2, Year 1 to Sep 2019 | Reported Achievements Phase 2, Year 2 Sep 19–Aug 2020 | Cumulative for Phase 1 and Phase 2, Data Gaps and Comments |
|-------------------------------|--|---|--|--|
| | in IMCI curriculum; 2 national facilitators/mentors hired by UNICEF. | | | |
| Health workers trained | 831 health workers trained (doctors, nurses, MW, CHWs) on EENC. | 371 health workers trained from 69 facilities (cumulative 1,340); i.e. more than 831+317 = 1,148 – 3 per HVDL facility. | 1,029 health workers from 291 facilities became EENC providers; i.e. different to numbers trained. | The cumulative total provided by UNICEF was 1,428 trained in EENC plus other training as below. |
| KC training | – | 241 health workers were trained on KC. | 1,161 health workers and VHVs trained on KC and rolled out in 8 provincial hospitals and 2 districts. | 1,202 health workers and VHVs trained in KC. |
| BKK training | – | – | 1,305 health workers and VHVs trained in BKK, integrated into other EENC interventions (KC?). | 1,305 health workers and VHVs trained in BKK. |
| AMTSL training | – | 371 health workers were trained on AMTSL. | 718 health workers trained on AMTSL = 1,089 Year 1 and 2. | 1,089 health workers trained on AMTSL Year 1 and Year 2. |
| NASG training | – | 218 health workers were trained on the use of NASGs. | 700 health workers, program managers, nursing/midwifery students, St Johns Ambulance workers, and VHVs have been trained and are now skilled in the use of the NASG. | 918 trained in NASG. |
| Staff mentored | Staff in 95 health centres mentored in 9 provinces. | 210 EENC-trained health workers mentored by provincial EENC facilitators/mentors. Partnerships with the PNG Paediatric Society and Obstetrics and Gynaecology Society were developed to provide on-the-job monitoring and mentoring support to the trained EENC health workers. | – | In Phase 2, Year1: ‘The project allocated a mentoring budget to hire private transportation. As car hire is very expensive, monitoring/mentoring visits have been limited’. Unclear how many supervisory visits were made using the program or PHA budget. |

Provision of equipment

| Activity | Achieved in Phase 1 Cumulatively | Reported Achievements Phase 2, Year 1 to Sep 2019 | Reported Achievements Phase 2, Year 2 Sep 19–Aug 2020 | Cumulative for Phase 1 and Phase 2, Data Gaps and Comments |
|---------------------------------|--|---|--|---|
| EENC equipment provided | 400 sets of Ambulance bags, mucus suckers. | 240 sets of equipment (Ambulance bags, mucus suckers etc.), distributed to HVDL facilities. From the DAK Foundation: BKK 300 units, KC kits 350 sets, Ambulance bags 48 units, emergency birthing kits 450 units, penguin mucus suckers 29 units; NASGs 18 pieces: already been delivered at a handover ceremony with NDoH; DFAT and UNICEF: ultrasounds 2, vital sign monitors 4, ECGs 2, patient monitors 2, pulse oximeters 7, foetal dopplers 2, suction units 2, infusion pumps 6, silicon resuscitators 20, and finger oximeters 5. | Reported again in 2020 but without details of numbers. More than 2,285 patients treated, equipment used more than 50,000 times (DAK Foundation equipment). | 2,000 BKK; 80 NASGs. Unclear if there was additional equipment purchased in Year 2, or the same reported twice. |
| BKK supplied/rolled out | BKK in 2 provinces; 78 received, 71 discharged with it, 62 followed up. All but one using/happy. | BKK scaled up to 69 health facilities (cumulative 359 health facilities) in 8 provinces (cumulative 20 provinces). | BKK rolled out to 69 health facilities. | 2,000 BKK to 69 health facilities in 18 provinces (plus 2 in Phase 1) = 20. |
| NASG supplied/rolled out | – | NASG scaled up to 69 health facilities (cumulative 359 health facilities) in 8 provinces (cumulative 20 provinces) or NASGs were rolled out to 8 out of 79 health facilities? (Both data included in the report.) | NASGs in 80 facilities in 20 provinces; 210 women saved by NASGs. | 125 NASGs, 80 'rolled out' in 22 provinces. |

VHV program

| Activity | Achieved in Phase 1 Cumulatively | Reported Achievements Phase 2, Year 1 to Sep 2019 | Reported Achievements Phase 2, Year 2 Sep 19–Aug 2020 | Cumulative for Phase 1 and Phase 2, Data Gaps and Comments |
|------------------------------------|---|---|--|---|
| VHV training | 56 VHVs trained in Henganofi District, EHP. | 154 trained in Year 1 reporting period = 314 total in 4 districts (does not add up – 56 + 154 = 210) (there were 119 trained in Pomio in 2019). | Trained 44, (358 cumulative); Added 2 districts, cumulative = 6 Narrative summary has 276 | 358 cumulative trained, 6 districts? |
| VHV equipment | VHV kits. | VHVs were equipped with VHV kits containing a penguin mucus sucker, baby mask, <i>Bebi Kol Kilok</i> , torch light, and KC cloths (evenly across districts?). | No reporting on VHV equipment (Pomio interview reported not receiving nearly enough BKK for the number of VHVs in 2019). | VHV kits (as opposed to health centre equipment)? 1 kit per VHV distributed? |
| VHV community awareness | 98 community meetings held (including male and female household members). | 102 mothers' and community meetings reaching 5,400 males and 8,100 females = 135 per meeting. | 1,099 community and mothers' meetings; 98,000 participants (not disaggregated). | Cumulative total? |
| VHV home visits | – | 314 made home visits to 381 mothers. ANC visits 22% (October 2017) to 47% (June 2018). (Narrative has 2018 to 2019). | 2,410 home visits: EENC, family planning, immunisation, nutrition etc.; 3,877 accompanied pregnant mothers to ANC. | There are other VHVs trained by other groups, but SLSS results table reporting is only for the VHVs supported by this project. |
| VHV home visits – postnatal | – | 1,043 home visits to provide postnatal care to 361 mothers and their newborns. | 2,410 general home visits. Does this now include postnatal visits? | Year 1 is no. of visits and no. of mothers visited. Year 2 is general home visits – multiple visits to a smaller number of mothers? |
| Referrals by VHVs | – | 15 newborns and 9 mothers were referred to the nearest health facility. | 39 babies; 703 mothers referred. | – |
| Health facility deliveries | – | 436 supervised hospital deliveries took place – an increase from 31% of deliveries (October 2018) to 44% (June 2019). | 1,079 accompanied by VHVs to health facility for delivery. | – |
| Village deliveries | – | – | 353 supervised village deliveries (VHV data). | Supervised by VHVs or trained health care workers/midwives? |

Selected outcome data reported

| Activity | Achieved in Phase 1 Cumulatively | Reported Achievements Phase 2, Year 1 to Sep 2019 | Reported Achievements Phase 2, Year 2 Sep 19–Aug 2020 | Cumulative for Phase 1 and Phase 2, Data Gaps and Comments |
|---------------------------------|---|---|---|--|
| Mothers/newborns reached | Reached 104,000 newborns. | 150,000 mothers and newborns – cumulative of Phase 1? (Reaching 49,000 mothers and their newborns in 7 provinces in Year 1). | Reaching 63,888 mothers – building on Year 1 narrative summary states 96,350 mothers and newborns reached). | Cumulative total unclear. |
| S2S/KC | 68% LBW/premature newborns received KC. | 36,652 (74.8%) received skin-to-skin care. | 73.8% LBW/premature newborns received KC; 1,099 S2S (VHV data); 1,000 KC (VHV data only). | – |
| EIBF | 76% all newborns breastfed 1st hour. | 36,995 (75.5%) early breastfeeding. | 1,050 EIBF (VHV data only). | – |
| Babies Resuscitation | 79 newborn resuscitations. | 298 newborn resuscitation (49,000 target births?). | 570/784 (911 in NHIS) = 241 from Port Moresby General Hospital. | Phase 1 =79, Phase 2 = 1,450, Total = 1,529. |
| Mothers saved | – | – | 205 (NASG) + 110 referred by VHV's. | 315 potentially saved. |
| AMTSL | – | – | Received AMTSL 69,048/80,368 (85%). | – |
| Case Fatality Rates | – | Mt Hagen Provincial Hospital: the case fatality rate (CFR) of neonatal conditions (infections, low birth weight and preterm babies) reduced significantly, from 37% to 18%. | CFRs not reported. | – |

Annex B: Key Review Questions and sub-questions

| Evaluation Criteria | Key Review Questions and sub-questions |
|----------------------------------|---|
| Effectiveness | <p>KRQ1. To what extent did the program achieve its expected outputs and end of program outcome?</p> <p>1.1 To what extent is the program contributing to the survival of mothers and newborns through improved and equitable access to EENC services in selected provinces of PNG?</p> <p>1.2 To what extent is the program strengthening political commitment and accountability at the national and provincial levels to plan and budget for scaling-up of the EENC program?</p> <p>1.3 To what extent is the program improving the capacity of hospitals, health centres, health sub-centres and local level governments to provide quality EENC services to targeted newborns, including in humanitarian situations in selected provinces?</p> <p>1.4 To what extent is the program increasing community, parent and caregiver understanding of the importance of EENC?</p> <p>1.5 To what extent is the approach consistent with global best practice?⁴⁴</p> <p>1.6 What are the key lessons learned from the implementation of the program?</p> |
| Efficiency | <p>KRQ2. To what extent has the program contributed to cost-effective service delivery?</p> <p>2.1 To what extent is the expected end of program outcome and outputs for this program appropriate given the level of resources invested and capacity available?</p> <p>2.2 How effective is the partnership between UNICEF, NDoH and Provincial Health Authorities (PHAs) in achieving expected outputs and outcomes?</p> <p>2.3 To what extent is the existing partnership with Paediatric Association, PNG; Midwifery Society, PNG; Obstetrics and Gynaecology Society; NGO TTU; and School of Midwifery, Goroka University, contributing to achieving the program results?</p> <p>2.4 To what extent is the program leveraging GoPNG resources and those of other partners?</p> |
| Relevance | <p>3.1 To what extent is the program aligned with the national Newborn Health Policy/Strategy?</p> <p>3.2 How has the program evolved to adapt to changes in the context (national and provincial)?</p> <p>3.3 To what extent is the program aligned to Australia's Health Portfolio Plan?</p> |
| Gender Equity | <p>KRQ4. To what extent have gender principles been incorporated into the design and delivery of this program?</p> <p>4.1 How well are gender equality principles being applied in the program?</p> <p>4.2 What are the most appropriate approaches employed by the program to improve gender equality and inclusion in project provinces?</p> <p>4.3 To what extent has sex-disaggregated data been collected and applied in the program?</p> |
| Monitoring and Evaluation | <p>KRQ5. To what extent have the findings from operational research, monitoring and evaluation been utilised in programming, planning, learning and accountability?</p> <p>5.1 To what extent does the level of resources allocated match expectations for monitoring of the program?</p> <p>5.2 Is the M&E Framework for the program appropriate for purpose?</p> <p>5.3 How has the program strengthened NHIS reporting and national and provincial health planning?</p> |

⁴⁴ This replaces the question in the Terms of Reference: 'Which models are delivering the most effective outcomes and in what context?' as the team were concerned there would not be sufficient data to draw meaningful comparisons. Aspects of the facility versus community-based approaches will be commented on under 1.6, while contextual analysis will be applied across sites to the extent possible.

| Evaluation Criteria | Key Review Questions and sub-questions |
|---------------------|--|
| Sustainability | <p>KRQ6. To what extent are the positive changes and effects sustainable after the completion of the SLSS program?</p> <p>6.1 What are the approaches and strategies employed for sustainability and managing risks for sustainability, including:</p> <ul style="list-style-type: none">• leveraging other partners and networks including government resources; and• systematically building on existing government institutions, promoting national ownership, and encouraging skills transfer to national and decentralised levels of government? <p>6.2 To what extent are capacity building, skills and knowledge transfer likely to be sustainable at sub-national levels?</p> |

Annex C: Key documents

DFAT PNG Health Portfolio Documents

DFAT PNG Health Portfolio Plan, July 2018–June 2023 (May 2018 version).

DFAT PNG Health Results Framework, 2018.

DFAT PNG COVID-19 Response Plan, October 2020.

DFAT PNG Health Portfolio Progress Report (prepared by HDMES), 2019, June 2020.

Australian Government – PNG Health Plan 2018–2023 – M&E Framework Health Portfolio Performance Assessment Framework (v4), November 2020.

Anderson, I., & Martin, R., Independent Evaluation of DFAT’s multilateral partnerships in the health sector in PNG, December 2017.

AHC SLSS Factsheet, August 2018.

Maternal and Child Health Initiative (MNCHI) Phase II Monitoring and Evaluation (M&E) Report, DFAT, 2015.

DFAT – Other

DFAT Monitoring and Evaluation Standards, 2017.

Evaluation of DFAT Investment Level Monitoring Systems, ODE, 2018.

GoPNG Documents, Policies and Plans

NDoH PNG, Newborn Health Policy 2014.

NDoH and Paediatric Society of PNG, PNG Child Health Policy and Plan 2009–2020 (updated 2015).

NDoH Sector Performance Annual Review Reports, 2018, 2016, 2015.

NDoH Maternal and Newborn Health Strategic Plan 2020–2025.

NDoH Integrated Management of Childhood Illnesses Policy 2014.

NDoH National Maternal and Newborn Health Strategy 2019–2024 (National Strategy).

NDoH Draft Village Health Volunteer Policy Document, April 2020.

NDoH, *Bikpela Hevi*, Ministerial Task Force on Maternal and Newborn Health, Situational Analysis, 30 June, 2019.

NDoH Ministerial Task Force on Maternal and Newborn Health, Position Paper, Improving quality of care and incentivising family planning, ANC, facility-based delivery in PNG, July 2019.

NDoH Ministerial Task Force on Maternal and Newborn Health, Position Paper, National Health Plan 2021–2030, September 2019.

GoPNG National Health Plan 2011–2020 – Volume 1 Policies and Strategies, June 2010.

GoPNG, National Public Service Gender Equity and Social Inclusion (GESI) Policy, (undated).

National Demographic and Health Survey (DHS) Report, 2016–18.

UNICEF Documents

Annual Progress Reports from Phase 1, 2015, 2016 and 2017.

Annex 1 – Situation Report (prepared for AHC’s COVID-19 Situation Report for PNG), June 2020.

Centers for Disease Control and Prevention, Evaluation of *Bebi Kol Kilok* Implementation in Papua New Guinea, 2018, and UNICEF Management Response April 2018.

SLSS NEC/Parliamentary Submission Notes for Health Minister, March 2020.

SLSS First Annual Progress Report, September 2019, and Second Annual Progress Report, December 2020.

St Johns Ambulance–UNICEF Draft Agreement, Improving the provision of lifesaving prehospital maternal and obstetric emergency services in PNG, 11 February 2021.

Touching the Untouchables, Strengthening Community Based Neonatal Care through Upskilling VHV's, Program Progress Report, Jan–May 2020.

Touching the Untouchables, Village Health Volunteers, Facilitator Manual, (undated).

UNICEF, SLSS Final Proposal to DFAT, 24 September 2018.

UNICEF Annual Early Essential Newborn Care (EENC) Implementation Review and Planning, Workshop Report, 2018.

UNICEF Annual Report 2020 (ref 45).

UNICEF PNG Country Office Annual Report, 2018.

UNICEF Assessment Report on Early Implementation of EENC in PNG, February 2017.

Other Related Documents

Butcher, K. Gender, Equity and Social Inclusion Assessment of the Health Sector in Papua New Guinea. Canberra: Health Resource Facility, Mott MacDonald, 2014.

Child Fund, A National Health Crisis: Maternal Deaths in PNG, May 2018.

Davis *et al.* Expectant fathers' participation in antenatal care services in Papua New Guinea: a qualitative inquiry, *BMC Pregnancy and Childbirth* (2018) 18:138.

Ekirapa-Kiracho, E., Namazzi, G., Tetui, M. *et al.*, 2016 (ref 46).

Grundy J., Dakulala P., Wai K., Maalsen A., & Whittaker M. Papua New Guinea Health System Review. Vol. 9 No. 1. New Delhi: World Health Organization, Regional Office for South-East Asia, 2019.

Hurst, T.E., Semrau, K., Patna, M., Gawande, A., & Hirschhorn, L.R. Demand-side interventions for maternal care: evidence of more use, not better outcomes. *BMC Pregnancy Childbirth*. 2015; 15:297. 2015 Nov 13.

Kulle, 2017 (ref 44).

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Robbers, G., Vogel, J.P., Mola, G., Bolgna, J. & Homer, C.S.E. Maternal and newborn health indicators in Papua New Guinea – 2008–2018, *Sexual and Reproductive Health Matters*, 27:1, 1686199, 2019.

WHO, Technical Note, Evidence summary and recommendations, Bempu Device for Detecting Neonatal Hypothermia (internal)? (undated).

WHO-UNICEF Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020).

Wiltshire, C., Watson, A.H.A., Lokinap, D. & Currie, T. Papua New Guinea's Primary Health Care System: Views from the Front Line. Canberra and Port Moresby: ANU and UPNG, 2020.

World Bank, Papua New Guinea Economic Update – Dealing with a Triple Crisis, 2021.

Annex D: SLSS M&E system assessment against DFAT M&E criteria

This report utilises the most recent version of the DFAT Monitoring and Evaluation Standards.⁴⁵

1. Description of MEL system

The system for collecting and reporting data is described in the SLSS proposal to DFAT prepared by UNICEF in 2018 in section 6: Monitoring, Evaluation and Reporting (1.25 pages). It references the legal framework of UNICEF and PNG's Cooperation Agreement, and adherence to the UNICEF Integrated M&E Plan for the country program. It emphasises UNICEF's support to the National Health Information System (NHIS) managed by the NDoH – rather than the creation of parallel reporting systems. The SLSS M&E system is reliant on sourcing its data from the NHIS. A Results Framework of largely quantitative indicators was included in the proposal and derived from overall country program reporting and has undergone several target and indicator revisions without the apparent use of a detailed change frame. Partner-generated data, from the district health centres up to the national level, provides the data for progress reporting against the Results Framework. This data is expected to be utilised to validate and test the logic between activity implementation and achievement of outputs. The SLSS design lacks a detailed program logic, but utilises a log frame-based Activity, Output, Outcome hierarchy in its design. Annual Workplan monitoring is done in close cooperation with NDoH, utilising joint field visits and spot checks. Progress reports are prepared by UNICEF for DFAT annually. Support is provided to the NDoH to strengthen its NHIS – largely through a dedicated full-time position in NDoH, the inclusion of additional EENC indicators into routine data collection for the NHIS and extending data collection beyond health facility to community-based births. Phase 1 concluded with an external evaluation of the BKK program. An external end-of-program review is budgeted for Phase 2 (additional to the DFAT-commissioned review). The MEL system, therefore, is tailored to the need of the UNICEF accountability system primarily, the NDoH NHIS secondarily, and DFAT's needs lastly.

a. Summary of MEL Plan including data collection tools

There is no specific MEL Plan available as expected by DFAT's M&E standards. The results-based monitoring approach in the design includes articulation of outcome and output indicators, with baselines, targets, and data collection sources (basic means of verification). These have been updated in subsequent progress reports. No evaluation or monitoring questions are included, rather, reporting at outcome and output level is largely quantitative, and most narrative reporting is focused on individual activities. Indicator definitions and specific processes for their collection are not articulated, with denominator populations not clearly defined. Rather, than rely on the NHIS data alone, quantitative data is collected from both NHIS *and* program-specific quantitative and qualitative data (specifically for the non-facility-based data) to report annually against the program targets in the Results Framework. Specific monitoring forms have been created for certain activities (principally associated with the VHV program). Pre-and post-tests have been developed for monitoring training. UNICEF undertook to 'document good practice and evaluate whether program activities have improved quality of service delivery', but the process and tools for this are not described. Importantly, there are no proposed plans for discrete monitoring and evaluation of the impact of innovative approaches, which may have provided useful information for advocating for their continued support (e.g. NASGs, the use of VHV to support referrals). There is also no explicit plan for the use of data to systematically share information and promote learning.

⁴⁵ See <https://www.dfat.gov.au/about-us/publications/Pages/dfat-monitoring-and-evaluation-standards>.

b. Summary of MEL resources

The SLSS program funds the participation of a full-time NDoH staff member (seconded) to facilitate data collection. A UNICEF M&E Officer who has oversight for all PNG programs also provides support. Progress reporting is prepared by the UNICEF Program Officer. Ten percent of the overall SLSS budget (AUD290,320) was earmarked for: Quarterly Review Meeting AUD63,500; Supportive Supervision and Monitoring AUD196,820; and End of Program Review AUD30,000. However, the cost categories in the latest progress report changed to: indirect Support Costs 7% = AUD93,203; and Review, Mentoring and Coaching – Travel AUD77,785, so that it is not clear what is actually counted as ‘M&E’. Apart from this, NDoH focal points are utilised in each province to facilitate data collection: from the district level to the provincial level, through a mixture of paper-based records and the tablet-based eNHIS system that is being rolled out. There was also a component for monitoring VHV activities in the contract with Touching the Untouchables. Additional information provided by UNICEF indicated that actual expenditure for the two years of Phase 2 was 5.7%, and the breakdown provided indicates many of these expenditures were associated with travel for routine mentoring and coaching of health staff. The actual monitoring for reporting purposes conducted through these activities is not clear.

c. Summary of reflection and reporting processes

Phase 1 reporting was scant in volume and detail, with a two-page summary of implementation progress. The 2015 report promised more data in 2016 by recommending that ‘EENC Teams in respective hospitals should ensure that health service data for EENC indicators are compiled regularly to assess EENC interventions,’ but did not set out a clear plan for how this would be achieved.

The 2016 and 2017 reports provide more data against expected outcomes and outputs and set out planned activities. They include a section on Risk Management, which documented barriers to progress, and a section on sustainability, gender equality, and partner engagement. The 2017 report is cumulative of all three years. There is some repetition across reports where data has not been updated between reporting periods. The PDF version of the 2017 report has a descriptive Human-Interest Story with photos as an annex, which, while useful in conveying a sense of the project’s achievements, is unclear in its purpose as a monitoring tool.

Phase 2 reporting is more detailed and informative; however, the data at the **Outcome level** in the Results matrix is very difficult to decipher and interpret. There are mistakes in the data, missing whole numbers (from which percentages are derived), and it is at times difficult to understand who the target population is for each indicator, who the denominator population is in the indicators, and whether the data is cumulative for both phases, the reporting year only, or cumulative for the second phase. It is also at times unclear whether it includes data from the VHV community-based activities, or only participating health facilities. It is also difficult to reconcile the Results Framework data with the summary table data, and the data reported throughout the report. For example, the number of health workers trained in EENC is reported in the narrative as 1,029 (p.15), or 60 – out of a cumulative 1,400 (p.6), or 80 in the Results Framework (p.10), or 11,616 trained on KC – part of EENC (including VHV). There may also be considerable double-counting as the same health workers may attend multiple training.

Activity and output-based reporting also lacks basic information, such as cumulative equipment procurement data – which are variously reported as ‘kits or separate items. The lack of clear monitoring questions means the reports struggle to report on the *outcome* of activities (in particular, their actual contribution to outputs) or their implementation quality in any systematic way, and challenges/implementation barriers are not always clearly articulated. For example, when activities are not completed, there is scant description of why or the implications (e.g. the e-learning module

and construction/upgrade of Special Care Nurseries are significantly behind schedule or have been changed to a new approach without explanation of the implications on outputs/outcomes).

d. Summary of scores against standards/criteria

The M&E Framework is assessed as barely adequate against the criteria – with the lack of a detailed M&E Plan (where some of this information may have been provided) being the main contributing factor to low scores: Scores for the 15 criteria assessed were:

1 x very good: Mutual accountability and use of partner systems.

5 x adequate: Goals and outcomes defined; Reach/coverage assessed; Context and risk monitored; Baselines constructed; Resourced and costed.

6 x less than adequate: Lack of an overarching MEL Plan, Inconsistency with international standards; Lack of evaluation questions; Methods of data collection and tools not described; Responsibility not allocated; Not easily understandable.

2 x poor: Lack of information about utilisation of information and M&E activity scheduling.

The adequacy of staff (criteria 2.16) was not assessed due to lack of sufficient information.

Progress reporting is also assessed as barely adequate, and of the 15 Standards, scored:

2 x very good: Context described; Progress against budget.

6 x adequate: Executive summary provides key information; Reflection on relevance; Assessment of adequacy of progress; Progress against Annual Plan; Frequency of reporting; Recommendations summarised.

5 x less than adequate: Reach, coverage, and exposure difficult to decipher; Reporting of negative issues lack details; Credible supportive data often lacking; Data presentation difficult to follow; Implications of lessons not articulated.

2 x Poor: Adequacy of inputs to meet outputs not assessed; Management or implementation systems not assessed.

2. Summary of strengths and weakness of the SLSS MEL system based on review of MEL plan and progress report using M&E standards, as well as gender and disability criteria

a. Strengths

- The monitoring framework uses a results-based monitoring approach, which includes baselines, targets, and minimal data source identification (Means of Verification), which is appropriate to the needs of UNICEF's reporting system.
- Outcome and Output indicators are reasonably fit for purpose.
- The M&E system seeks to strengthen and draw on existing PNG data collection (the NHIS) rather than creating a parallel system. This is a positive contribution to sustainability of the system; however, reliance on it for program monitoring data also creates challenges.
- An evaluation of a single initiative (BKK) was of good quality and provided an evidence base which was used by SLSS management for programming in Phase 2.

b. Areas for further consideration

- The SLSS design and subsequent documentation has been prepared to meet the needs of the UNICEF reporting system and does not include a detailed M&E Plan. As a result, the design documentation lacks many of the requirements of a MEL Framework and system as expected by DFAT's M&E standards – specifically, the purpose, audience, data collection methods and tools, and there are no monitoring or evaluation questions to guide data collection and reporting.

- The M&E system is overly focused on accountability rather than utility and plans for utilisation of the data for reflection and learning are not articulated or reported.
- The Results Framework is focused on quantitative outcome and output indicators, which, while largely fit for purpose, provide insufficient detail on the achievement of lower-level (immediate and intermediate) outcomes (also referred to as ‘outputs’ in the Results Framework).
- Outcome indicator definition and data collection methodology is not clearly articulated, leading to lack of clarity around what the data in the Results Framework means and for which time period (Phase 1, 2 or both). Targets have been changed with no clear change frame for reference. Community-level data is mixed with facility-level data, although it is not always clear for which indicators.
- Reporting against activities does not clearly indicate progress towards achieving outputs (beyond the 1–3 quantitative indicators per outcome), and barriers to progress/challenges are not always clearly articulated, nor their implications for the achievement of outputs/outcomes. Narrative reporting on activity achievement includes, at times, unsubstantiated claims of progress with no way of assessing prevalence.
- Reliance on the NHIS (through the addition of EENC indicators) leaves program reporting open to the data deficiencies inherent in the national system (delayed reporting from health facilities, inaccurate data, the same data repeated month to month, missing data from hospital level etc.). Addressing these deficiencies may be beyond the capacity and mandate of SLSS.
- Reporting on Gender and Disability was less than adequate, with a general lack of data disaggregation on some key indicators – especially around capturing changes to men’s participation in EENC.
- There is a lack of planning for evaluation to ‘prove’ specific elements of the program that are novel (VHVs, NASGs, and further BKK research). This may be a lost opportunity to use the program to gather evidence for promoting innovations that were successful.
- The switch from the ‘DevInfo’ approach to using the NHIS may have missed the opportunity to provide the granular level of detail needed to aid planning of health services (real-time data), with limited evidence the provincial data submitted to the NHIS is used by PHAs for this purpose.
- An appropriate budget is indicated for M&E activities (10% of the total), reflecting good practice. Actual expenditure however is only 5.7%, including on supervisory visits.

3. Summary of capacity to report to the Health Portfolio Plan

The following are potential outcomes and indicators from the existing DFAT Health Portfolio Plan 2018–2023 Performance Assessment Framework to which SLSS could contribute (with some revision).

Table 1. DFAT Health Portfolio Plan 2018–2023 Performance Assessment Framework outcomes, indicators and potential SLSS contribution

| PAF Outcome Hierarchy and Description | Related Relevant Indicators | Comments |
|--|---|---|
| Primary goal: Support the Government of PNG improve health and well-being of its citizens in line with the PNG National Health Plan. | – | – |
| Additional goal: A strong partnership on health contributes to the overall Australia–PNG bilateral relationship. | – | – |
| Objective: ‘Improved health of the citizens of Papua New Guinea in selected provinces and districts relating to TB, family planning, sexual reproductive health, HIV and maternal and child health.’ | – Maternal mortality rate (per 100,000 live births). – Under-5 mortality rate (per 1,000 live births). | <i>Collected in the DHS at 5-year intervals. Impossible to attribute SLSS outcomes at this level.</i> |
| End of Plan Outcome 1: Health Security and Major Communicable Disease: By 2023, NDoH, and selected PHAs, provincial hospitals and primary health care centres improve prevention, detection, and response to emerging and existing high burden communicable diseases and health security threats. | – | – |
| End of Plan Outcome 2: Rural Primary Health Care: By 2023, NDoH, other agencies and selected PHAs and District Development Authorities improve utilisation of government finance and improve health worker recruitment and retention so that rural primary health care centres are delivering primary health care, in particular antenatal care and integrated childcare. | – Proportion (%) of births attended by skilled personnel at health facilities. | <i>Collected from the NHIS.</i> |
| Intermediate Outcome 2.2: Selected PHAs and districts improve capacity to deliver primary health care. | No relevant indicators for SLSS. | <i>Could include an indicator on PHAs, including planning/budgeting for EENC/MNCH service provision. Could include an indicator on provincial/district hospitals with upgraded facilities to provide safe deliveries/EENC services.</i> |
| Intermediate Outcome 2.3: Selected rural primary health care centres better staffed and financed. | No relevant indicators for SLSS. | <i>Could include an indicator on district governments including planning/budgeting for EENC/MNCH service provision.</i> |
| End of Plan Outcome 3: Integrated Family Planning, HIV, and Sexual and Reproductive Health: By 2023, in selected provinces and districts, selected government, church and NGO clinics delivering improved quality client centred, integrated HIV, reproductive health, and voluntary family planning services. | – Number of pregnant women in each project province attending at least 1 ANC visit. | <i>Collected from the NHIS.</i> |

| PAF Outcome Hierarchy and Description | Related Relevant Indicators | Comments |
|--|--|--|
| <p>Intermediate Outcome 3.1: Selected government, church and NGO clinics build capacity to deliver quality integrated health care.</p> | <ul style="list-style-type: none"> – Number/proportion of health facilities at sub-national level that have the capacity to deliver SRH/family planning and MNCH services. – Number of integrated facility staff trained and demonstrating increased confidence and competence in HIV, sexually transmitted infections and SRH clinical care. | <p><i>Could include EENC and maternal care equipment provided at health centre level.</i></p> <p><i>Could include EENC and maternal care: provincial hospital/district health centre staff trained in EENC/MNCH.</i></p> |
| <p>Intermediate Outcome 3.2: Increased community awareness of health issues and increased health-seeking behaviour for health care in selected provinces.</p> | <ul style="list-style-type: none"> – Knowledge, awareness, and acceptance of women’s health services (SRH/family planning and MNCH) in project provinces. | <p><i>Could include ‘EENC’ in the indicator – data from the VHV awareness program.</i></p> |

Table 2. M&E System Quality Criteria

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|--|----------------|--|
| 2.6 | The M&E Plan provides a summary of the overarching system design including key M&E approaches and activities. | 3 | No overall M&E Plan. Results Framework is agreed with the respective partners and derived from the UNICEF country program results and resources matrix. Scant information on indicator definition or the data collection process provided. |
| 2.7 | The M&E Plan is consistent with current international standards for evaluation practice (e.g. Joint Committee on Standards for Educational Evaluation – Program Evaluation Standards). | 3 | No overall M&E Plan. M&E conducted within the framework of UNICEF’s Cooperation Agreement with GoPNG, coordinated by DNPM. The UNICEF Integrated M&E Plan for the country program is the prime planning and management tool for all country office monitoring and evaluation activities. It is a plan for one-off studies and evaluation activities as well as for UNICEF’s support to permanent management information systems. |
| 2.8 | Goals and end-of-program outcomes are clearly articulated and assessed. | 4 | Described in a Results Framework as an outcome with three outputs. Supporting indicators lack clear definition of the sample/denominator populations for each. Activity reporting lacks a clear link at times between contribution to outputs/outcomes. Indicators and targets were revised/updated as implementation progressed with no clear change frame provided. |
| 2.9 | The plan is focused on key performance indicators and evaluation questions linked to specific intended uses of the information. | 3 | The outcome has seven indicators, and each output has 1–3. Only a few of these have been gender disaggregated (retrospectively). Evaluation questions are not articulated, and there is no plan for data use as such. Outcomes are reported quantitatively, with narrative reporting on ad hoc aspects of activities and outputs. |
| 2.10 | The reach/coverage, quality, and exposure of participants to key deliverables are monitored and evaluated. | 4 | To an extent. Data is collected on numbers trained, and percentage who demonstrate increased knowledge; parents reached and percentage gaining knowledge, and the numbers of mothers and babies reached with lifesaving knowledge and services. There is a lack of clarity over cumulative reporting between phases and reporting year. |
| 2.11 | Relevant aspects of the context and key risks are monitored. | 4 | There is a risk matrix in the Project Proposal. This is updated annually. However, there was significant reporting on the impact of COVID-19 on health facility visits which was not included in progress reporting (reported separately to DFAT). |
| 2.12 | Methods are fully described for sampling, data collection, management, analysis, and processing. | 3 | ‘UNICEF PNG uses its standard monitoring tools, regular field visits and spot checks to monitor implementation and assure quality. UNICEF-supported interventions are monitored as part and the monitoring of the Annual Workplans and supplemented by specific joint visits by UNICEF staff and its partners.’ Methods are not described in any detail beyond this, and there is no schedule for monitoring visits. An independent evaluation was planned and conducted for the BKK pilot at the end of Phase 1, with rigorous description of methodology. It is assumed the End of Program Review to be commissioned would include the same rigour; however, the plan for what will be evaluated and how is not clear. |
| 2.13 | Baselines are constructed where appropriate. | 4 | Baseline data was not included in the Phase 1 Results Framework but was being progressively added where it existed – mainly from the Pilot District from Phase 1. Denominators are not clear. For the majority of indicators, there is a 0 baseline. |

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|--|----------------|--|
| 2.14 | Responsibility is allocated to specific individuals (not organisations) for all M&E activities. | 3 | The lack of an M&E Plan makes it difficult to know who is responsible, beyond relying on the district and provincial health facilities to collect data for reporting up to the national level against both the NHIS data and the Results Framework. |
| 2.15 | Mutual accountability and joint assessment by local partners are provided for (using partner systems where appropriate). | 5 | NDoH and PHAs are the lead partners. NDoH is the custodian of the NHIS. UNICEF planned to strengthen the NHIS by adding EENC indicators; however, a comprehensive neonatal death indicator is lacking. Also plans to contribute to ADB supported NDoH's eNHIS project. DevInfo was replaced with eNHIS (as it now includes SLSS and EENC data). The reliance on NHIS data however leaves program reporting vulnerable to the deficiencies in the NHIS data quality. |
| 2.17 | A strategy for the utilisation of information is described. | 1 | Although there is an output concerned with providing real-time performance information to the PHAs (utilising DevInfo) to assist in improving planning and budgeting, once DevInfo was replaced with eNHIS, it is not clear how this is intended to occur. Program progress reporting is provided to DFAT, but not routinely to DNPM. It is unclear who in NDoH receives progress reporting from the program (other than what is in the NHIS). |
| 2.18 | A complete schedule of M&E activities shows when all key M&E activities will be carried out and information available. | 1 | N/A due to the lack of an M&E Plan. Joint monitoring visits are a principal tool; however, their frequency and scheduling are not detailed. |
| 2.19 | The M&E Plan can be easily understood by non-specialists and key stakeholders. | 3 | The lack of clarity in reporting makes it difficult to decipher what the quantitative data is showing. This includes mistakes, missing whole numbers (from which percentages are derived), and it is at times difficult to understand who the target population is for each indicator – including whether the data is for the reporting year or cumulative. It is also difficult to reconcile the Results Framework data with the summary table data, and the data reported throughout the report. |
| 2.20 | The M&E Plan is resourced and costed. | 4 | 10% of overall budget was allocated to M&E; however, actual budget expenditure according to program reporting was 5.7% per year in Phase 2. |

Feature of Progress Report (Phase 2 reports only)

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|--|----------------|--|
| 3.1 | There is an executive summary that communicates the key information required for routine DFAT reporting and oversight. | 4 | The Phase 2 reporting provides executive summaries with key data; however, this is sometimes difficult to interpret as the quantitative data differs from the results table and other data throughout the report. Challenges and barriers to progress are not adequately highlighted. Planned activities for the subsequent year are included with minimal detail. |
| 3.2 | The relevant aspects of the context are adequately described. | 5 | The context of COVID-19 and its impact on activities is included (and also reported separately to DFAT). |

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|--|----------------|--|
| 3.3 | There is a reflection on the continuing relevance of the investment. | 4 | Lack of progress in MMR and Neonatal Mortality Rate (NMR) in PNG is reiterated, indicating a continuing need for programming in this area. |
| 3.4 | An assessment of the adequacy of progress toward sustained end-of-program outcomes is described. | 4 | End-of-program outcomes are reported against indicators, and the extent of their achievement against annual targets described (i.e. Fully achieved). As the denominator populations of targets are not always clear, adequacy is difficult to judge. In addition, activity reporting does not equate to a judgement about adequacy of achieving outputs, which are defined by a few quantitative indicators each. |
| 3.5 | The reach/coverage, quality, and exposure of investment participants to relevant key outputs or deliverables for the reporting period are described. | 3 | There is an attempt to quantify the reach of exposure of investment participants. The lack of clarity in reporting makes it difficult to decipher what the quantitative data is showing. This includes mistakes, missing whole numbers (from which percentages are derived), and it is at times difficult to understand who the target population (denominator) is for each indicator – including whether the data is for the reporting year or cumulative. It is also difficult to reconcile the Results Framework data with the summary table data, and the data reported throughout the report. Several requests for clarity on this information were made to UNICEF, who were slow to respond. |
| 3.6 | The adequacy of progress implementing the annual plan is described. | 4 | Mostly, with reporting by activity, although this was variable in detail and quality. |
| 3.7 | An assessment of the likely adequacy of planned inputs to meet the expected end-of-program outcomes is provided. | 2 | The targets were revised downward from the original proposal, although progress reporting did not include a detailed change frame. The full implications of the delays caused by COVID-19 and a strategy for addressing them in future in order to meet the targets are not detailed. |
| 3.8 | The adequacy of progress against the budget is assessed. | 5 | Budget information is included, although it is not itemised in detail, and the budget categories appeared to change between Year 1 and 2 of Phase 2 (e.g. especially for expenditure on M&E). |
| 3.9 | Key management or implementation systems are described, and their performance assessed. | 2 | Implementation arrangements and systems are not detailed. It is simply stated that the NDoH is the key implementing partner, with no analysis of how this partnership is progressing. |
| 3.10 | The report provides balanced and fair reporting of positive and negative issues, achievements, and challenges. | 3 | There is some attention to including challenges, although these are repetitive across the years, and there is often minimal explanation of why activities are behind schedule or significantly changed (e.g. SCNUs, e-learning modules, disability activities). |
| 3.11 | For claims of achievement credible supportive evidence is provided. | 3 | While supporting evidence is included where it exists, there are many unsubstantiated claims of achievements, particularly around increased men's participation, and increased government commitment. |
| 3.12 | Data or findings are presented in formats that effectively and efficiently communicate important information. | 3 | Results reporting against the outcome and output indicators is confusing, as the denominator populations of targets are not always clear, nor whether data is cumulative for the reporting period, across the years of a single phase, or both phases. Activity level reporting is a mix of quantitative and qualitative, and often misses important information on implications of delays, changes, or how the data was derived. The 'human interest' stories attached are informative and convey a sense of the program at |

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|--|----------------|--|
| | | | village level, but their purpose as a data collection tool is unclear, and narrative activity reporting does not appear to reference them. |
| 3.13 | The frequency of reporting is suitable for effective investment management. | 4 | Data from provinces/districts is collected on a monthly basis (mostly connected to the NHIS). It is not clear with what frequency other data is collected. Progress is reported to DFAT Annually. Six monthly reporting may have improved rigour of data collection/collation of statistics as gaps were identified and addressed. |
| 3.14 | The report includes lessons learned from implementation that have potentially important implications more broadly. | 3 | Progress reports include a lesson learnt section, which largely reinstates the perceived effectiveness of program activities/strategies and repeats them from one year to the next. Their implications are not clearly articulated. |
| 3.15 | Previous and/or proposed management responses or recommendations are summarised. | 4 | Next steps are included, although not in any detail. |

Additional Criteria: Gender

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|---|----------------|---|
| – | Expected gender equality outcomes are clearly articulated. | 4 | There are no specific gender outcomes defined. Rather, these are implicit, with no specific intent to increase men's involvement in childcare in the design. However, there is an attempt to empower women to make choices around health service access – largely by 'creating demand' through a VHV-based awareness program and creating a link between pregnant mothers and health centres. |
| – | The M&E Plan includes key performance indicators (sex-disaggregated) and/or evaluation questions relating to gender equality. | 3 | Gender disaggregation of indicators has only occurred in the most recent progress report, and only relating to the sex of babies and the healthcare professionals trained. VHV/parent/caregiver indicators are not gender disaggregated. The awareness of mothers on caregiving practice is monitored through VHV home visits. |
| – | The progress report provides an assessment of the adequacy of progress toward gender equality outcomes. | 3 | Reporting on men's involvement in care of neonates is largely anecdotal, and data on this is not routinely collected. |

Additional Criteria: Disability

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|---|----------------|---|
| – | M&E system tracks people with disability (PWD)/ disabled people's organisation (DPO) involvement in program; e.g. in program planning and review. | 1 | Disability is barely mentioned. There is a section included in the report, but it focuses more on what is <i>planned</i> to happen rather than what actually happened. For example, there is a plan to introduce the Washington Group questions into VHV training in Year 3, but this intention is not carried through into the 'next steps' section. |

| Standard | M&E Standard Elements | Score (1 to 6) | Comment |
|----------|---|----------------|---|
| – | M&E system includes disability-disaggregated data; e.g. at output and outcome levels. | 2 | No indicators or data collection points are disaggregated by disability. There is some reporting on disability, but it appears ad hoc, and the link to SLSS activities is not clear (e.g. training and diagnosis). |
| – | M&E system tracks and reports disability-inclusive development (DID) results; e.g. policy changes that redress discrimination against people with disabilities. | 2 | There is some reporting on disability, but it appears ad hoc and is perhaps drawn from the broader UNICEF program – i.e. RANZCO testing for blindness; provision of pulse oximeters, reporting from a (unnamed hospital) of 3 children (not necessarily neonates?). |

| Score | Standard | Description |
|-------|--------------------|--|
| 1 | Very poor | Fails to meet any aspect of this criterion |
| 2 | Poor | There are significant shortcomings |
| 3 | Less than adequate | On balance does not meet the criterion |
| 4 | Adequate | On balance satisfies criterion |
| 5 | Good | The criterion was met with only minor shortcomings |
| 6 | Excellent | The criterion was fully met (or exceeded) and there were no shortcomings |

Table 3. Specific comments on SLSS Results Framework Indicators

Outcome: By end 2021, mothers and fathers have improved and equitable access to and use of early essential newborn care services that enhance the health status of mothers and babies and increase the survival of about 250,000 newborns in PNG.

| Indicators/Baselines / Targets | Definition | Numerator | Denominator | Comments |
|---|--|---|---|---|
| – | – | – | – | <p>‘Equity of access’ is not specifically defined.</p> <p>Target is 250,000 in 11 provinces. Progress data is from the 22 provinces with EENC training or activities (BKK/NASG).</p> <p>No indicator for measuring overall change in neonatal survival rates.</p> <p>Data source for <i>all</i> outcome indicators defined as: NHIS, NDoH, but combined with additional sources without explanation.</p> |
| Percentage of newborn babies who received postnatal care (Baseline 20%; Target 50%). | % of newborn babies who received a package of healthcare provided to women and their newborns either at the facility or during consultation at home. For women who deliver at a health facility, WHO recommendations support inpatient care for at least 24 hours, and/or provision of care as early as possible and at least within 24 hours for women and newborns who are delivered at home – disaggregated by gender (boys and girls). | Total number of babies born in health facility who received postnatal care within the first 24 hours of delivery. | Total number of babies born in all health facilities in all provinces. | <p>‘Package of healthcare’ not defined.</p> <p>Postnatal care is provided for 6 weeks after delivery. Unclear what proportion received full PNC or partial. If only from first 24 hours, it is ‘immediate post-delivery care’.</p> <p>Program reporting for full PNC is only from VHV data, which provide a much smaller number.</p> <p>Total number of deliveries (114,509) includes 34,289 born outside facilities.</p> |
| Percentage of mothers who received postnatal care within 6 weeks after delivery (Target 50%). | Total number of women who delivered in the health facility who received postnatal care within the first 24 hours of birth and within 6 weeks. | Total number of women who delivered in the health facility who received postnatal care within the first 24 hours of birth and within 6 weeks. | Total number of women who gave birth in health facilities in all provinces. | <p>As above.</p> <p><i>Within 6 weeks</i> implies includes home visits. NHIS does not provide home visit data, only immediate post-delivery care.</p> |
| % Newborns reached with EENC package (Target 80%). | % of newborns who receive preventive and supportive care required for all newborns including warmth, cleanliness, breastfeeding, cord and eye care, vitamin K | Number of newborns who are delivered in health facilities that | Total number of babies born in the health facility in all provinces. | EENC defined, but the indicator only apparently counts the S2S component as having received the ‘package’. |

| Indicators/Baselines / Targets | Definition | Numerator | Denominator | Comments |
|---|---|--|--|--|
| | and immunisations – disaggregated by gender (boys and girls). | receive EENC package. | | |
| % Mothers who received AMTSL (Target 80%). | Number of mothers who received Active Management of Third Stage of Labour (AMTSL) - involving giving a prophylactic uterotonic, early cord clamping and controlled cord traction to deliver the placenta. | Total number of women who delivered in a health facility and received AMTSL. | Total number of women who delivered in the health facilities in all provinces. | AMTSL well defined. Unclear from reporting if all elements are received or partial. Data is collated by SLSS from the new birth registry books. |
| % Mothers with PPH referred with NASG (no target). | Number of women with PPH for whom NASG garment was applied and referred to higher centres. | Total number of women birthing at health facility who received NASG for management of PPH. | Total number of women with PPH. | Total number of women with PPH not reported in NHIS. Data is collated by SLSS from the new birth registry books. |
| % Asphyxiated newborns resuscitated and saved (Target 80%). | Basic neonatal resuscitation describes assessment and actions for every newborn at the time of birth, to assist in establishing breathing and circulation; it should be practised on all non-macerated newborns not breathing spontaneously following immediate drying in accordance with current WHO guidelines. The intervention definition does not include advanced resuscitation measures. | Total number of babies born in health facilities who were asphyxiated and resuscitated. | Total number of babies born asphyxiated in health facilities in all provinces. | The NDoH EENC report includes a column on babies resuscitated, but not on the number of babies who were asphyxiated. Unclear how is this defined and measured? |
| % LBW/premature babies receive KC/swaddling (Target 50%). | Number of LBW/premature newborns who received KC and swaddling disaggregated by gender, boys, and girls. | Total number of newborns receiving KC. | Total number of LBW/premature newborns in health facilities in all provinces. | The NHIS include a column on LBW, but it is not clear whether these numbers include those born outside facilities, or only those within facilities. The numbers are much lower than would be expected. Definition of 'receipt of KC' does not specify a time period hours/day/number of days. Unclear whether the number of newborns who received KC reflect the proportion that needed it. (Data is mixed with non-LBW newborns in highland areas.) |
| % LBW/premature babies receive BKK (Target 90%). | Number of newborns who receive BKK as part of the management of hypothermia | Total number of babies born in | Total number of premature or | Unclear why this target is higher than for KC? |

| Indicators/Baselines / Targets | Definition | Numerator | Denominator | Comments |
|--------------------------------|--|--|---|--|
| | for LBW and premature babies. The current evidence to achieve mortality reductions supports KC for clinically stable newborns weighing less than 2,000 g, initiated in a facility. | health facility and in the communities who received hypothermia alert devices. | LBW babies born in health facilities and in the community in all provinces. | This indicator includes both babies born in facilities and those born in the community. NHIS data only includes facility data. Unclear the source of LBW babies in the community data. |

Output-1: Strengthened political commitment, accountability with real-time health performance information at the provincial level to plan, budget and deliver early essential newborn care program by end of 2021. Target: 11 provinces.

| Indicators/Baselines/ Targets | Definition | Numerator | Denominator | Comments |
|--|------------|-----------|-------------|---|
| Number of functional provincial Newborn Survival Core Committees with periodic reports on actions taken (Baseline 0; Target 6). | – | – | – | This is the only indicator of political commitment. Reporting does not confirm that ‘periodic reports on actions taken are’ occurring, or any indication of the extent to which committees are functioning after establishment. |
| Number of costed provincial newborn health plans incorporated into the provincial Annual Implementation Plan (AIP) (Baseline 0; Target 6). | – | – | – | This was included as an indicator in 2019, removed in 2020 report. Should have been reported annually (since these plans occur annually). DSIP also important to track. Unclear whether plans are in fact funded. May have included an indicator that captured evidence that health performance information was being used. |

Output 2: Health facilities and selected communities have the capacity (equipment, trained and supervised staff, and monitored services) to provide quality facility-based and community-based EENC to all newborns, including in humanitarian situations, by end of 2021. Target: 413 facilities.

| Indicators/Baselines/ Targets | Definition | Numerator | Denominator | Comments |
|---|--|--|--|--|
| – | – | – | – | Unclear whether/how ‘including in humanitarian situations by end of 2021’ is reported. |
| Percentage of high-load delivery rooms at health facilities equipped to deliver essential and lifesaving early newborn care (Baseline 30%; Target 90%). | Number of high-load delivery rooms in health facilities equipped to deliver essential and lifesaving early newborn care. | Total number of high-load delivery health facilities supported with equipment. | Total number of high-load delivery health facilities in all provinces. | Unclear baseline: is it 30% of the 413 target? Unclear what ‘equipped to deliver’ means – according to what standard/minimum, requirement? |

| Indicators/Baselines/Targets | Definition | Numerator | Denominator | Comments |
|---|---|--|--|---|
| Percentage of healthcare professionals with good knowledge and skills on early essential neonatal care (Baseline NA; Target 95% of trainees based on post-training scores of at least 80%). | Number of healthcare professionals with good knowledge and skills on early essential neonatal care disaggregated by gender. | Number of health workers trained in EENC who scored 80% on post-training test. | Total number of health workers trained in EENC in all provinces. | Adequate indicator, reporting does not reflect totals trained (considering the multiple training conducted). Presumably does not include NASG training? |
| Number of state-of-art Special Care Newborn Units functional at provincial hospital in line with Global Neonatal Care standards (Baseline 0; Target 6). | – | – | – | – |

Output 3: Communities, parents and other caregivers have better understanding of the importance of EENC, and demonstrate positive attitudes towards key maternal and newborn healthcare practices by June 2021. Target: Reduced from 22 to 7 districts (in 7 provinces?).

| Indicators/Baselines/Targets | Definition | Numerator | Denominator | Comments |
|--|---|-------------------------------------|---|---|
| – | – | – | – | Better 'understanding' is only measured among those who received postnatal home visits. May be unrelated to participatory community mobilisation. |
| Proportion of village health volunteer with adequate knowledge and skills on communication and counselling to support maternal and neonatal service delivery (Baseline NA; 80% based on post-training scores of at least 80%). | – | – | – | OK – post-training test. |
| Percentage of people reached by civil society organisations conducting participatory | Number of people reached by civil society organisations through participatory community mobilisation. | Total number of people who attended | Total number of people in the catchment area of the VHVs. | Civil society organisations are not engaged to conduct participatory community mobilisation (except where TTU supported VHVs in EHP); VHVs may do the only community mobilisation. 'Numbers attending' is necessary data but does |

| Indicators/Baselines/Targets | Definition | Numerator | Denominator | Comments |
|---|---|---|--|--|
| community mobilisation (Baseline NA; Target 50%). | | community meetings. | | not inform about changes to understanding. Not gender disaggregated. |
| Percentage of mothers and caregivers knowledgeable on essential newborn care practices (Baseline NA; Target 80%). | Number of mothers and caregivers knowledgeable on essential newborn care practices. | Number of mothers who received postnatal care and demonstrated knowledge on essential newborn care. | Total number of postnatal women in each community in the selected districts. | Not related to community mobilisation activity. Data only from home visits observing practice change/adoption. Not gender disaggregated to capture men's care practices. |

Annex E: First phase: Key Informants

Note: **Red text** in the lists below indicates Key Informants identified by UNICEF who were unavailable for interview during the data collection period.

Australian High Commission/DFAT

| Key Informants | Role |
|--------------------|--|
| Chris Graham | First Secretary – Health Security |
| Gertrude N'Dreland | Program Manager – Development Cooperation, Health Security |
| Theresa Reu | Assistant Program Manager – Health Security |
| Anna Gilchrist | Former First Secretary – Health Security |

UNICEF

| Key Informants | Role |
|---------------------|--|
| Garba Safiyanu | Health Specialist |
| Paula Kongua | SLSS Program Manager |
| Judith Bruno | Deputy Representative |
| Andrew Sammy | Chief of Health and Nutrition |
| Stephanie Laryea | M&E Specialist |
| Ban Khalid Al-Dhayi | Communication for Development Specialist |

National Department of Health

| Key Informants | Role |
|-----------------------|---|
| Dr Sibauk Bieb | Executive Manager, Public Health |
| Dr Edward J. Waramin | Manager, Population and Family Health |
| Freda Sui | Technical Officer, Newborn and Child Health |
| Marilyn Jonathan | Technical Officer, Child Health |
| Philip Vagi | Technical Officer, Child Health |
| Julie Kep | Acting Registrar, PNG Nursing Council |
| Nigel Gabriel Uaiz | Early Essential Newborn Care National Coordinator |

Department of National Planning and Monitoring

| Key Informants | Role |
|----------------|--|
| Martin Pomat | Assistant Secretary, Foreign Aid Division – Australia Branch |
| Chi-Haru Sai' | Coordinator, Australian Aid Branch, DNPM |

Other Implementing Partners and Donors

| Key Informants | Role |
|-------------------------------|---|
| Joyce Kuamba | Senior Lecturer, Midwifery School, University of Goroka |
| Dr Mary Bagita Vangana | Obstetrics and Gynaecology Society, Member of the Child Health Advisory Committee: |
| Jennifer Pyakaliya | Midwifery Society, Member of the Child Health Advisory Committee |
| Esther Sailas | Director, Touching the Untouchables (TTU) |
| Susan Kevengu | SLSS Coordinator, TTU |
| Jesse Irie | Administration Manager, TTU |
| Dr Titilola Duro-Aino | Health Specialist, UNFPA |
| Madeline Salva | Technical Officer, Maternal Health, Gender and EENC, World Health Organization, PNG |
| Jessie Yaipupu | Medical Officer, Maternal Health, World Health Organization, PNG |

Port Moresby General Hospital

| Key Informants | Role |
|----------------|-----------------------|
| Dr Barnabas | Paediatric Specialist |
| Dr Gamini Vali | Paediatric Registrar |
| Sr Wanis Koral | Midwife, NASG Trainer |

Provincial and District Health, participating EENC providers (Eastern Highlands Province)

| Key Informants | Role |
|----------------|--|
| Dr Max Manape | PHA, Director Public Health – SLSS Focal Person |
| Dr Freda Wemin | Obstetrician, Goroka Base Hospital - provincial EENC trainer |
| Salome Wera | Officer-in-Charge, Onamuga Health Centre, (Salvation Army), Henganofi District |
| See also: | TTU, staff, Joyce Kuamba above |

Provincial and District Health, participating EENC providers (Western Highlands Province)

| Key Informants | Role |
|------------------|---|
| David Vorst | PHA, Chief Executive Officer |
| Mr Dannex Kupamu | PHA, Family Health Services Coordinator, Acting Director, Public Health |
| Sr Susan Kolopu, | Sister-in-Charge, Mt Hagen Hospital, Labour Ward |
| Monica Poasa | Clinical HEO, Mt Hagen Hospital, Special Care Nursery |
| Dr Joseph Kuk | Senior Obstetrics and Gynaecologist Specialist, Mt Hagen Hospital |
| Acwe Mambu | SLSS District Coordinator (UNICEF-funded), Tambul Nebiliyer, Focal Point for VHVs |
| Elizabeth Kendu | District Health Promotion Officer, Tambul Nebiliyer |

Provincial and District Health, participating EENC providers (Madang)

| Key Informants | Role |
|-------------------|--|
| Mr Fidelis Waimpa | PHA CEO |
| Dr Jimmy Aipit | Paediatrician, Modilon Hospital – Provincial Trainer of Trainers |
| Dr Paula Ao | Obstetrician, Modilon Hospital |

Provincial and District Health, participating EENC service providers (East New Britain Province)

| Key Informants | Role |
|-------------------|--|
| Dr Ako Yap | CEO PHA |
| Elise Buka | PHA Health Extension Officer |
| Dr Veronica Kalit | Paediatrician, Nonga Base Hospital |
| Sr Wowo | Sister-in-Charge for Paediatrics, Nonga Base Hospital – Provincial Trainer of Trainers |
| Dr Beryl Vetuna | SSMO, Paediatrics, Nonga Base Hospital – Provincial Trainer of Trainers |
| Imelda Kally | Health Manager, Pomio District, Focal Point for VHVs |
| Wayne Folou | Health Extension Officer, Pomio District |

Annex F: Second phase: Interviews with health workers, VHVs and caregivers by province

The following table shows the number of respondents by way of health workers, Village Health Volunteers, and parents/caregivers.

| Province | CHWs | VHVs | Parents/Caregivers | Subtotal |
|---------------|-----------|-----------|--------------------|------------|
| EHP | 3 | 15 | 14 | 32 |
| ENB | 8 | 14 | 11 | 33 |
| Madang | 7 | 0 | 3 | 10 |
| WHP | 7 | 13 | 7 | 27 |
| Totals | 25 | 42 | 35 | 102 |

Information was also collected on the state of the health facility, and the available infrastructure and equipment.

The following table summarises the information on the facilities visited and the staff interviewed.

| District | Facility | Level | Staffing | Interviews | Physical Amenities |
|----------|-------------|--|--|------------|--|
| EHP | Komperi ✓ | Health sub-centre Level 2 church-operated | 2 Nurses, 3 CHWs | 2 | Running water; clean; electricity available. |
| EHP | Kesevaka ✓ | Health sub-centre Level 2 | 1 Nurse, 3 CHWs | 1 | Old; solar panel; no running water. |
| WHP | Tambul ✓ | District health centre Level 3 | 4 Nursing Officers, 6 CHWs | 4 | Electricity, windmill/solar; running water and tank; good condition. |
| WHP | Gia ✓ | Health sub-centre Level 2 church-operated | 1 Nursing Officer, 2 CHWs | 3 | Small, no electricity or running water but tank; small solar panel. |
| Pomio | Palmalmal ✓ | District health centre Level 3 | 1 MO, 2 HEOs, 2 MWs, 11 Nurses and 3 CHWs | 4 | Electricity and running water; well-kept solar fridge. |
| Pomio | Pomio ✓ | Health sub-centre Level 2 | 1 HEO, 1 MW, 2 Nurses, 3 CHWs | 3 | No electricity or running water; tank, solar panel. |
| Pomio | Matong | Health sub-centre Level 2 | 1 Nurse, 1 MW | 1 | Old, run down, leaky plumbing, no electricity, small solar panel; cramped delivery room, normal bed. |
| Madang | Gusap | District health centre Level 3 | 3 MWs, 4 CHWs, 1 Nurse and 1 HEO (private support) | 3 | Well-kept, 2 delivery beds, 3 postnatal beds. Has electricity and running water. |
| Madang | Walium | 'Supposed to be Level 3' | 3 MWs, 2 Nursing Officers, 4 CHWs (estimate) | 1 | Old, run down; no running water; unreliable electricity. |

Condition of the facilities

Apart from Walium, the three Level 3 facilities appear to be well-staffed and in good condition with key physical amenities. As these facilities function as the nearest referral level and support for Level 2 facilities, this finding demonstrates an effective result from SLSS inputs.

Among the Level 2 facilities, there were sufficient staff of at least 3 in 5 of 6 facilities; but 5 of these 6 facilities were in poor condition and lacked basic amenities such as electricity and running water. These conditions would make it difficult for health care workers to provide delivery and postnatal care to the level expected for EENC and would not provide an environment that would encourage women to attend the facilities for delivery.

However, facilities with only male staff – e.g. Gia (L2) – attended training with 2 other staff from the health centre. Could put most into practice and teach others in health facility. Continue to practise but would like supervisory visit. Two male staff but women do not like to deliver with males.

Key findings from interviews

1. Staff have received EENC training and put it into practice in most facilities; although limited by poor quality of physical amenities in some facilities (especially Level 2 health centre).

Gia (L2) reports lack of running water; suction pump, forceps etc. old and rusty. No steriliser. No light – use torch. No road access for ambulance.

Pomio (L2) – Useful for all staff to attend as enabled them to put new skills into practice; now use S2S and bag and mask to resuscitate newborns – nurses now have skills, reducing demand on her (as HEO); but they have not used BKK or KMC as there are few LBW babies – VHVs advocate KMC to mothers.

2. SLSS training continues to be used (notably S2S, KMC) – and passed on by trainees to staff who did not attend. There is potential to support this by providing teaching aids.

Tambul (L3) – Benefit of program: Increased skills in managing complicated deliveries, additional 2 staff who can assist deliveries.

Gia (L2) did not attend EENC training, but officer-in-charge and nurse attended and passed on training to her, and she uses in practice.

Palmal (L3) – Training enabled midwife to deal with more complicated cases and resuscitation of newborns; learnt and adopted delay in cord clamping, and S2S. Joint training of all staff at facility assisted implementation.

3. BKK found to be useful but supplies exhausted; NASG of less use.

Tambul (L3) – Uses BKK for LBW babies and finds that it encourages KMC, but NASG used only once – transfer to provincial hospital but patient died; prefers to use familiar methods such as misoprostol.

Komperi (L2) also reported that BKK reminded caregivers to provide KMC and that use of KMC reduced referrals of LBW newborns to the provincial hospital, but they have now run out of stock.

4. Supervision occurs but does not appear to contribute much to service quality.

Komperi (L2) and Kesavaka (L2) report regular supervision from District Health Office, but Tambul (L3) reported no supervisory visits.

5. Role of VHVs very supportive – enables access to EENC; fills in gaps (e.g. conducting delivery when male nurse or staff not available) – and many VHVs seem to have a long-term connection with facility, which is likely to continue.

Tambul (L3) – VHV role in accompanying women to facility for delivery; remain until discharged and accompany the women back to village. Main benefit has been role of VHVs; limitation – lack of incentive/pay for VHVs.

Kesavaka (L2) – VHVs do most of the interventions including demonstrating KMC and distributing BKK – but now BKK out of stock.

Kesavaka (L2) – Increase in women attending facility for EENC: mainly result of VHVs – as other staff male, women more comfortable with female VHV assisting delivery.

Komperi (L2) – VHVs close relationship and assist in accompanying women for ANC, deliveries and return home; 2 VHVs also assist in basic cleanliness and preparations in facility; bring women to facility for delivery – call staff on duty if attend during night.

Pomio (L2) – VHVs identify pregnant women and bring to facility; assist in deliveries; one assists deliveries in remote village – then brings to facility to check; accompany referred patients to health centre; encourage mothers to attend for ANC and check at facility after delivery in village; only 2 VHVs remain – but receive no reward or remuneration.

6. Main challenge is access for women at delivery – physical barriers; but also delays or waiting for onset of labour, and reluctance to stay in facility after delivery. Traditional beliefs also an issue, especially for those in logging camps.

Tambul (L3) – Women attend ANC but do not return for delivery; the distance to travel to the facility results in women sometimes delivering before arrival.

Kesavaka (L2) – Increase in ANC but less impact on facility delivery due to delivery enroute; little change in PNC – low attendance at facility for PNC.

Palmalmal (L3) – Traditional beliefs and customs as barrier to service access; husbands may not agree to access health services or use of family planning – belief in sorcery.

Palmalmal (L3) – Need for more support from community for women to stay in facility 2 days after delivery; lack of incentive for VHVs – but women's relatives may give some incentive such as food or kerosene.

Annex G: Assessment effectiveness: Recommended actions from WPRO regional EENC plan 2014–2020

| Objectives regional EENC plan | Actions proposed in regional plan – countries | Actions proposed in regional plan – WHO and UNICEF | Designed activities in SLSS |
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| 1.1 To ensure Early Essential Newborn Care has been incorporated into national and sub-national health agendas, plans, budgets, and financing mechanisms. | <ol style="list-style-type: none"> 1. Appoint a full-time ministry of health focal person/coordinator for newborn health/EENC. 2. Establish or expand a technical working/ coordination group to include EENC. 3. Incorporate EENC into existing maternal and newborn health policies and strategies. 4. Prepare a costed implementation plan for EENC that includes social marketing. 5. Advocate for financial protection of all EENC services. | <ol style="list-style-type: none"> 1. Develop planning and costing tools for EENC, including social marketing based on formative research. 2. Support countries to plan for expansion of EENC. | <p>Activities 1.1, 1.5, 1.7</p> <p>1.1 Support to national CHAC with respect to policy development, including through support to 1 NDoH Child Health Officer.</p> <p>1.5 Support for national, provincial and district child or newborn health advisory committees.</p> <p>1.7. Development of provincial AIPs and costed child/newborn health plans. <i>(Potential gap – financial protection for EENC services.)</i></p> |
| 1.2 To enable providers of newborn care to practise EENC at every birth by providing appropriate system support and training. | <ol style="list-style-type: none"> 1. Support health workers to adopt and apply EENC at every birth using effective adult-learning methodologies, monitoring, supportive supervision, and communication. 2. Create settings conducive to practising EENC, including incentives. 3. Integrate EENC into pre-service education for midwives, nurses and physicians. 4. Ensure that training methodologies for EENC are participatory and practice-based. | <ol style="list-style-type: none"> 1. Support Member States to conduct formative research on the needs of providers of newborn care to practise EENC at every birth. 2. Revise existing WHO training materials on EENC and support training programs to ensure health workers master these key skills. 3. Develop methodologies to evaluate and strengthen monitoring (including EENC core interventions), supportive supervision and communications based on formative research and social marketing. | <p>Activities 1.2–1.4 2.4–2.8</p> <p>1.2/3/4 Endorsement of the national guidelines, training modules, supervision tools and monitoring tools for EENC for both in-service and pre-service curricula, and printing of materials and job aids.</p> <p>2.4 Develop in-service training program to deliver quality EENC services through training of trainers model.</p> <p>2.5 Funds to regular supportive supervision and mentoring at district and sub-district levels.</p> <p>2.6 Training of VHVs and NGO CHWs on EENC.</p> <p>2.7 Integrating EENC into pre-service curriculum.</p> <p>2.8/9 Training staff/managers in SCNUs at provincial hospitals.</p> |
| 1.3 To ensure EENC has been incorporated in clinical protocols, quality improvement cycles and accreditation mechanisms. | <ol style="list-style-type: none"> 1. Update clinical protocols to incorporate EENC at all levels of care. 2. Include EENC in quality improvement mechanisms of health facilities. 3. Establish standards for infection prevention and control. 4. Incorporate EENC in accreditation and regulatory mechanisms. | <ol style="list-style-type: none"> 1. Develop model clinical protocols. 2. Develop model quality measurement tools for implementation of EENC, including clinical observation tools, client exit surveys and record review. | <p>Activities 1.2 and 2.9</p> <p>1.2 Adaptation and endorsement of the national guidelines, training modules, supervision tools and monitoring tools for EENC for both in-service and pre-service training curricula.</p> <p>2.9 Accreditation of SCNUs.</p> |

| Objectives regional EENC plan | Actions proposed in regional plan – countries | Actions proposed in regional plan – WHO and UNICEF | Designed activities in SLSS |
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| 1.4 To scale up centres of excellence (CoE) implementing EENC. | <ol style="list-style-type: none"> 1. Issue standards for CoE. 2. Support hospital administrators and health professionals to adopt and monitor implementation of national policies and standards and strengthen systems for EENC. 3. Strengthen implementation of national standards and guidelines on hospital infection control. 4. Monitor hospital-acquired infections and birth-weight-specific case fatality rates in CoE based on national standards and guidelines. | <ol style="list-style-type: none"> 1. Develop criteria for establishing CoE. 2. Develop tools and models for measuring quality of intrapartum and newborn care practices. 3. Undertake research and publish results to validate implementation of EENC and perinatal outcomes. | <p>Activities 2.8 and 2.9</p> <p>2.8 Strengthening newborn care units at provincial hospitals into state-of-the-art SCNU.</p> <p>2.9 Accreditation of SCNU at provincial hospitals, including through the development of quality standards.</p> |
| 2.1 To mobilise political commitment and social support of key stakeholders for policies, programs and services for the implementation of EENC. | <ol style="list-style-type: none"> 1. Organise a core EENC stakeholder group to engage key political leaders and champions to support EENC, including policymakers, legislators, health providers, hospital administrators, civil society leaders, development partners, media practitioners, academia and health professional associations. 2. Establish and strengthen mechanisms to ensure members of professional associations are implementing EENC. 3. Advocate sustained funding and resources for EENC. | <ol style="list-style-type: none"> 1. Support the development of a country template for engaging key stakeholders. 2. Develop communication tools, materials and methods for the components of EENC, including campaign and communication strategies. 3. Monitor and evaluate: <ol style="list-style-type: none"> a. changes in awareness of key stakeholders b. resources mobilised to support EENC implementation. | <p>Activity 1.2, 1.5, 1.7 and 2.1</p> <p>1.1 Support to national CHAC with respect to policy development.</p> <p>1.5 Support for national, provincial and district child or newborn health advisory committees.</p> <p>1.7 Development of provincial AIP and costed child/newborn health plans.</p> <p>2.1 Partner with local community-based organisations (CBOs), faith-based organisations (FBOs) and non-government organisations (NGOs).</p> <p><i>(Non-planned activities at national level took place with national-level decision-makers; e.g. launch of program.)</i></p> |
| 2.2: To mobilise political commitment and social support of key stakeholders for policies, programs and services for the implementation of EENC. | <ol style="list-style-type: none"> 1. Fully adopt the International Code of Marketing of Breast Milk Substitutes and subsequent relevant World Health Assembly resolutions into enforceable legislation. 2. Institutionalise Baby-Friendly Hospital Initiative (BFHI), including assessment and reaccreditation into national accreditation, licensing, financial standards or other acceptable healthcare system structures. 3. Support health facilities where births take place to fully achieve BFHI. | <ol style="list-style-type: none"> 1. Conduct biannual regional reviews of International Milk Code adaptation. 2. Provide technical support and guidance to countries to meet targets for compliance with international standards for marketing of products for infant and young child feeding. 3. Support regional health professional society groups to adhere to international standards to eliminate conflict of interest. 4. Support countries to institutionalise BFHI as a necessary component of EENC. | <p><i>Breastfeeding was incorporated into the health worker and VHV training, but other activities listed here were not undertaken. They may be encompassed within other UNICEF programs.</i></p> |

| Objectives regional EENC plan | Actions proposed in regional plan – countries | Actions proposed in regional plan – WHO and UNICEF | Designed activities in SLSS |
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| 3.1: To ensure availability of a Skilled Birth Attendant (SBA) for every birth. | <ol style="list-style-type: none"> 1. Ensure national plans and budgets address availability and retention of SBAs. 2. Strengthen and sustain efforts towards equitable distribution of SBAs. | <ol style="list-style-type: none"> 1. Support countries to evaluate the availability and distribution of SBAs and to improve plans for availability. | <i>Not addressed</i> |
| 3.2: To ensure availability of equipment, supplies, essential medicines and infrastructure for EENC in routine and emergency situations. | <ol style="list-style-type: none"> 1. Review and update national essential medicines and supply lists to ensure that they include those required to implement EENC. 2. Incorporate essential EENC medicines, commodities and infrastructure into existing monitoring systems to track availability, quality and affordability. 3. Track availability of EENC medicines, commodities and infrastructure by conducting regular facility assessment. 4. Improve the availability of EENC medicines, commodities and infrastructure – through improved ordering, procurement, distribution and facility upgrades. | <ol style="list-style-type: none"> 1. Support countries to evaluate availability of essential maternal and newborn commodities, technology and infrastructure. 2. Engage experts to recommend standards for high-priority issues such as spacing between patients, sources of clean water and clean toilets in facilities where births take place. 3. Engage experts to develop a framework for strengthening effective referral systems with specific focus on mothers and newborn infants. | Activity 2.2–2.3 2.2 Improve equipment in facilities. 2.3 Improve infrastructure in facilities. <i>(Gap – limited support to referral system, other than through VHVs.)</i> |
| 4.1: To increase community demand for skilled birth and newborn attendance and EENC. | <ol style="list-style-type: none"> 1. Review and update policies, plans and programs targeting communities by government, national and community NGOs, development partners and civil society. 2. Develop a communication strategy to create positive values toward newborn infants: <ol style="list-style-type: none"> a. Seeks skilled attendance at birth, prepare themselves for birth, demand The First Embrace, seek care for sick and LBW newborn infants early. b. Plan for and provide optimal postnatal at-home care. | <ol style="list-style-type: none"> 1. Support countries to develop a communication strategy. 2. Ensure maternal and newborn health incorporated in existing community initiatives. 3. Support countries to review and update policies, plans and programs targeting communities. | Activities 2.6, 3.1–3.3 1.6 VHVs and CHWs (from NGO programs) trained on EENC. 3.1 Training needs assessment on gaps in knowledge and skills on communication and counselling. 3.2 Supporting NDoH to improve capacity through assessment in knowledge gaps, development of training materials, and training of health promotion division. 3.3 Empowering communities to seek quality EENC. |
| 5.1: To strengthen capacity of routine information systems to collect accurate data on perinatal health. | <ol style="list-style-type: none"> 1. Include MDG 4 indicators and those recommended by the Commission on Information and Accountability for Women’s and Children’s Health in routine recording and reporting systems. 2. Ensure civil registration includes all births, stillbirths, neonatal deaths and causes of neonatal deaths. 3. Establish, strengthen and scale up model surveillance systems monitoring selected EENC practices, stillbirths, | <ol style="list-style-type: none"> 1. Conduct analysis and publish results on current status of routine collection of perinatal data, barriers and capacity for improved recording system in the region. 2. Develop data-quality assessment tools for routine information systems. 3. Support countries to conduct quality assessments of data periodically. | Activity 1.8 1.8 Development of tracker (planned using separate DevInfo system but built into National Health Information System). <i>(Gaps – Limited publication of perinatal data. – Other UNICEF programs may be strengthening civil registration system.)</i> |

| Objectives regional EENC plan | Actions proposed in regional plan – countries | Actions proposed in regional plan – WHO and UNICEF | Designed activities in SLSS |
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| | neonatal deaths, causes of neonatal deaths, and case fatality rates. | 4. Support countries to enhance/develop a comprehensive and functional civil registry system. | |
| <p>5.2: To improve collection and use of data on perinatal health and practices through research, surveys and audits.</p> | <ol style="list-style-type: none"> 1. Periodically conduct EENC health facility surveys. 2. Adopt perinatal death audits in selected health facilities. 3. Ensure national and sub-national health surveys (for example, Demographic and Health Survey) and include neonatal and perinatal variables disaggregated by social stratifies to monitor equity. | <ol style="list-style-type: none"> 1. Support countries to conduct perinatal death audits. 2. Develop and build consensus on facility-based measures of EENC practice for tracking quality of care. 3. Support countries to improve presentation of data on EENC to facilitate country action. | <p>Activities 1.6–1.8</p> <ol style="list-style-type: none"> 1. Undertaking mapping of services and bottleneck analysis of barriers to service utilisation. 2. Development of online DevInfo Dashboard for tracking priority areas. |