



Australian Government  
Department of Foreign Affairs and Trade



# AUSTRALIA TIMOR-LESTE HEALTH REVIEW REPORT



30<sup>th</sup> January 2019

Marion Kelly

Damien Sweeney

Belarmino da Silva Pereira

Delfim da Costa Xavier Ferreira

## Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>ABBREVIATIONS.....</b>	<b>8</b>
<b>BACKGROUND .....</b>	<b>9</b>
<b>OBJECTIVES.....</b>	<b>9</b>
<b>METHODS .....</b>	<b>10</b>
<b>FINDINGS.....</b>	<b>11</b>
1. Strengths and gaps in the health sector that affect RMNCH in Timor-Leste.....	12
<i>General .....</i>	<i>12</i>
<i>Stewardship .....</i>	<i>13</i>
<i>Management.....</i>	<i>14</i>
<i>Infrastructure, equipment, supplies and transport.....</i>	<i>16</i>
<i>Health workforce.....</i>	<i>16</i>
<i>Service delivery.....</i>	<i>17</i>
<i>Summary of strengths and gaps.....</i>	<i>18</i>
2. Alignment of DFAT program objectives with health sector priorities.....	18
3. Extent to which DFAT investments have led to increased utilisation of RMNCH services .....	19
4. Likely contribution of investments to improved range, quality and reach of RMNCH services .....	21
5. Results of investments in strengthening the health system to respond to RMNCH needs ('enabling environment') .....	22
6. Suitability of the mix of approaches and partners to contribute to RMNCH.....	22
7. Coherence of DFAT's bilateral investments in the health sector .....	24
8. Likely sustainability of achievements of the DFAT bilateral investments .....	24
9. Lessons that could improve existing or new DFAT investments in health.....	25
<b>RECOMMENDATIONS.....</b>	<b>26</b>
1. General recommendations.....	28
2. Recommendations, by health system objective, in preparation for redesign .....	28
3. Recommendations for the evolution of individual program components:.....	30
<i>(a) Support transition of two initiatives into GOTL.....</i>	<i>30</i>
<i>(b) Modify two investments that will need to continue for the duration of the bilateral program.....</i>	<i>30</i>
<i>(c) Begin three new investments.....</i>	<i>32</i>
4. Suggestions for a 'Whole-of-PHD' approach.....	33
5. Suggestions for what the program will not include.....	34
6. Recommendations for theory of change, M&E and reporting.....	34
<b>RISKS .....</b>	<b>37</b>
<b>CONCLUSIONS .....</b>	<b>38</b>
<b>BIBLIOGRAPHY.....</b>	<b>40</b>
<b>ANNEXES .....</b>	<b>43</b>

## EXECUTIVE SUMMARY

### Introduction

Based on findings obtained through a range of quantitative and qualitative methods, this Review: (i) analyses the strengths and gaps in Timor-Leste's health sector, with specific reference to reproductive, maternal, neonatal and child health (RMNCH) and the wider systemic factors that affect it; (ii) gauges the performance, relevance, appropriateness and sustainability of ongoing Australian bilateral RMNCH and related health sector investments; (iii) identifies opportunities to improve the program; and (iv) makes recommendations for redesigning the program.

### Context: strengths and gaps of Timor-Leste's health system

Timor-Leste's infant and child mortality rates have each declined by about one-third since 2009-10, but neonatal mortality (i.e., in the first four weeks of life) has decreased by only 14%<sup>1</sup>, and neonatal deaths now account for almost half of all deaths among children under five. The current level of maternal mortality is unknown at the time of writing, but it is plausible that it remains high, since maternal and neonatal health outcomes are both highly reliant on health system functionality (more so than post-neonatal health outcomes, which respond strongly to more 'vertical' interventions, such as immunization).

Coverage of key RMNCH services has been improving at varying speeds. Since 2009-10, unmet need for family planning declined from 32% to 25%<sup>2</sup> with an increased in the use of family planning by 4% in any methods. For both antenatal care and postnatal care, uptake has improved by around 40% of 2009-10 levels, while skilled care at delivery has more or less doubled.

Despite these encouraging trends, there are still inequities in access to services and in health outcomes. There is considerable room to improve RMNCH service delivery, especially in relation to emergency obstetric and neonatal care (EmONC); to do this sustainably requires attention to the wider health system. All elements of the health system (stewardship, management, infrastructure, health workforce and service delivery) affect RMNCH. Gaps in infrastructure, equipment and supplies undermine health facility readiness, thereby compromising the quality of RMNCH services and tending to dampen demand from users.

Timor-Leste's decentralisation policy poses new challenges, especially at municipality level, where management capacity is limited, financial flows are not timely, accountability is diffuse to the point of being non-existent, and citizens' engagement in governance is low. Although total national health spending is below international benchmarks there is also significant scope for increasing efficiency, e.g., by allocating health workers more rationally. While recent growth of the medical workforce is welcome, many new doctors lack adequate clinical competences for RMNCH; poor skills are also common in other key RMNCH cadres (e.g., nurses and midwives), and geographical distribution of health professionals is inequitable.

---

<sup>1</sup> 'Mortality in the 2016 Timor-Leste Demographic and Health Survey (TLDHS) may be underestimated' and these 'results should be considered with caution' (DHS, 2016).

<sup>2</sup> 2016 TLDHS

## Australia's response

Since the early days of Timor-Leste's independence, the Government of Australia has been providing aid to the country's health sector, with a focus on maternal and child health. Australia's response includes a bilateral health program currently worth AUD 7.5 million per year; this now forms the 'health pillar' of the Partnership for Human Development (PHD), within which investments for the period 2015-2018 are as follows:

- AUD 8.8 million to Marie Stopes Timor-Leste to increase demand for and uptake of quality, comprehensive, non-judgmental sexual and reproductive health (SRH) services in 12 municipalities in partnership with the Ministry of Health (MOH) and others.
- AUD 7.0 million to the Royal Australasian College of Surgeons (RACS) for the Australia-Timor-Leste Assistance to Secondary Services Phase II (ATLASS II) to provide clinical expertise and **postgraduate courses** for junior doctors to become **general practitioners and specialists**.
- AUD 4.8 million to Health Alliance International to improve **midwives' skills** in normal delivery and newborn care in partnership with the National Health Institute. HAI also partners with Catalpa International on the implementation of the Liga Inan project.
- AUD 3.5 million for an **ambulance and health transport** project to make health transport available to women in labour and other patients needing urgent care.
- AUD 1.6 million to Catalpa International for 'Liga Inan', a project that uses **mobile phone communication to promote use of RMNCH** services and enable mothers to get advice from midwives.
- AUD 2.24 million for **technical assistance** (TA) to (i) strengthen the health management **information** system by improving the quality, availability and use of health data; and (ii) improve **public financial management** in the health sector.

## Key findings

The above investments are, on the whole, aligned to Timor-Leste's priorities as set out in the National Health Sector Strategic Plan 2011-2030. The projects are currently performing reasonably well against their targets for building RMNCH skills/competences, improving the functionality of health transport, fostering informed choice from an expanded range of family planning methods, and promoting uptake of these and other RMNCH services; in addition, TA on health information has been well-received and the public financial management adviser is providing vital analyses of challenges such as the implications of decentralization. It is likely that Australian investments have contributed, together with other factors, to increasing the range, quality and reach of RMNCH services; these improvements, as well as more direct efforts to promote uptake, have almost certainly helped to boost use of services.

Although there have been successes, the current program currently seems overly focused on improving clinical skills and competencies, despite the risk that these may not be fully utilized - and can even be lost - when those who have been trained must work in health facilities with low levels of readiness and utilization due to persistent weaknesses across the various elements of the health system. There is room to improve the coherence of the program's component projects and to realize more fully the potential comparative advantages of the arrangement through which management is outsourced to PHD.

Contextual changes since the inception of the program also create new challenges and opportunities. National ownership and leadership of Timor-Leste's health agenda are

increasingly evident: the Ministry of Health (MOH) has shown commitment to internalising responsibility for 'Liga Inan' (by budgeting for it in four municipalities) and for the Ambulance and Health Transport project. MOH is also developing or refining several key strategies and plans - including initiatives to improve EmONC, human resources strategic management, and harmonisation - and the new Minister is planning a review of health sector configuration, to include infrastructure, staffing and services. These promising changes, however, are taking place in a context of decreasing international aid for health in Timor-Leste, as other donors that have been active in RMNCH are exiting the country or seeing their budgets dwindle, even though maternal and neonatal causes still account for a very high proportion of the country's burden of disease.

In view of the above, the next few years are likely to be a particularly dynamic time for Timor-Leste's health sector and for Australia's support. In view of continuing needs and declining aid from others, Australia's bilateral health program should continue to focus on RMNCH objectives – including EmONC, which needs to be made available more equitably in order to accelerate progress in maternal and neonatal health. This is a complex challenge requiring enhanced functionality and integration of all elements of the health system. Institutional and managerial challenges will need to be met in order to sustain achievements, especially as decentralization progresses. Going forward, the Australian bilateral program can increase its impact by means of a partial re-design.

## **Recommendations**

Recommendations of the Review are based on: (i) Australia's comparative advantage as the largest donor, with an established tradition of bilateral partnership and ample capacity for both strategic management and project administration; (ii) performance of the program over the period covered by the Review; (iii) remaining gaps and challenges, especially insufficient support for EmONC and management within the sector and suboptimal balance and coherence within the program; and (iv) opportunities and risks arising from ongoing and expected contextual changes. ***Note that because a number of RMNCH-relevant strategies are being revised at present, (iii) and (iv) are the main drivers for the recommendations of the Review.***

Detailed recommendations for a more effective approach are listed below and organized under several sub-headings. General recommendations concerning ways of working and the balance of investments are followed by recommendations for high-level actions to prepare the ground for detailed redesign of the program during 2018, and then by recommendations for evolution of individual investments, resulting in a program with five components (**Reproductive health, Postgraduate medical training, Obstetric/neonatal care, Management, and Technical assistance**) from 2019.

### General recommendations for DFAT/PHD

**Improve ways of working:** in response to improvements in MOH stewardship by building on Australia's comparative advantage as a health donor to improve aid effectiveness, i.e.:

- increase emphasis on equity and rights in health policy dialogue and programming;
- ensure alignment with new/revised strategies/plans as they emerge and be responsive to MOH direction on geographic focus of projects; and
- improve harmonization (as per forthcoming MOH manual) and working with other donors to speak with one voice to GOTL.



**Manage the program more strategically** and increase coherence by actualising the potential comparative advantage of the partnership, i.e.:

- determine the respective roles and functions of DFAT and PHD with regard to policy, strategy and management, and communicate these to stakeholders;
- work closely with GOTL to encourage efforts to ensure that different elements of the health system improve in ways that support each other to achieve RMNCH aims;
- be alert to emerging opportunities for catalytic interventions that could boost RMNCH, and retain flexibility to respond to them; and
- ensure complementary interventions add up to more than the sum of its parts.

**Improve the balance of investments** in response to the evolving capacity of the health sector and to the imbalance created by focusing on the health workforce while persistent systemic issues undermine quality of care, i.e.,

- reduce direct provision of services and do more to support GOTL to deliver;
- give more emphasis to overall health facility readiness for RMNCH services; and
- do more to promote and support systemic/institutional reforms and to help the health system adapt to decentralization.

Recommendations by health system objective, in preparation for redesign of the program to improve RMNCH outcomes

Stewardship:

- provide short-term TA to support the MOH 'configuration' review;
- explore the feasibility of MOH taking greater responsibility for selecting and managing TA while having increased flexibility to identify its TA needs; and
- engage with MOH and other partners on the EmONC Improvement Plan of Action

Management:

- pursue dialogue with MOH and National Health Institute on developing a package of support for middle-level managers and senior management in MOH and municipalities

Health workforce:

- promote/support institutional reform to foster more effective cross-sectoral collaboration between the national university and the national referral/teaching hospital, to improve pre-service training and postgraduate medical education;
- encourage MOH to take over responsibility for basic refresher training for midwives (which is currently done mainly by Health Alliance International)

Infrastructure, equipment and supplies:

- maintain an overview of the functionality of the procurement/supplies system and an understanding of its implications for RMNCH;
- consider the case for DFAT/PHD to provide support for procuring key items of EmONC equipment as part of a comprehensive MOH-led initiative;
- help MOH make the case within GOTL for an autonomous ambulance service and agree an approach and timeline for handover of responsibilities for health transport.

Service delivery:

- make Liga Inan more robust before its transition into MOH is completed; and
- intensify integrated working with PHD Education and Gender programs to ensure inclusion of adolescent girls and boys in efforts to alter gender norms, foster behaviour change and promote use of services.

## Recommendations for the evolution of individual investments

Subject to the outcomes of the above preparatory discussions and activities, individual components of the program should evolve as follows:

### *(a) Support transition of Liga Inan and Health Transport into GOTL during 2018-19*

The report provides detailed suggestions for making **Liga Inan** more robust before its transition into MOH is completed. These relate to assessing the quality of evidence for it, exploring equity implications, increasing the reach of the intervention, and integrating its 'dashboard' with the routine information system.

Once the approaches and timeline for transition of the **Health Transport** project are agreed, interim support during the handover period should include operations research to assess new arrangements.

### *(b) Continue reproductive health and postgraduate medical training investments with modifications*

After 2018, the **sexual and reproductive health** project should increasingly emphasise: family planning skills of MoH midwives and doctors; raising awareness of services available in public sector facilities; countering judgmental attitudes toward users of FP; reaching those who are hardest to reach; and improving value for money.

Modifications to the **postgraduate medical training** project should include: updating the Family Medicine Program (i.e., general practitioner) curriculum; following up graduates working in community health centres to understand and improve their working conditions; and adjusting the balance between production of general practitioners – for whom there is an especially urgent need – and specialists, by finishing the training of those already enrolled for specialist training but not enrolling any further specialist trainees during the remainder of the program period.

### *(c) New investments in obstetric and neonatal care, management, and technical assistance*

Following completion of the project currently led by HAI, a new program on **obstetric and neonatal care** should focus on: (i) clinical training for new midwifery graduates prior to deployment; (ii) developing basic EmONC competences among currently serving midwives; and (iii) providing basic EmONC equipment.

A new initiative to strengthen health **management** at various levels should be designed, with a substantial operations research component to enable learning by doing and to link this initiative to stewardship of the sector, especially in relation to decentralization. Middle-level managers' training should emphasise supportive supervision for better management of infrastructure/equipment/supplies elements for RMNCH services.

A flexible budget line for **technical assistance** should be created within the program to respond to MOH's increased ownership and expanded range of identified needs (e.g., health economics and financing, decentralization, health information, public financial management, institutional reform of pre-service training arrangements, and citizen engagement in governance).

## ABBREVIATIONS

ANC	Ante natal care	M&E	Monitoring and evaluation
ANC1	Ante natal care 1 <sup>st</sup> visit	MDA	Maternal death audit
ANC4	Ante natal care 4 <sup>th</sup> visit	MDSR	Maternal death surveillance and response
ANCP	Australian NGO Cooperation Program	MELF	M&E and Learning Framework
APTC	Australia Pacific Technical College	MFV	Multi-function vehicle
BEmONC	Basic EmONC	MOH	Ministry of Health
CBM	Community based monitoring	MSG	Mother support group
CHC	Community health centre	MSTL	Marie Stopes Timor-Leste
CYP	Couple-years protection	NGO	Non-government organisation
DALY	Disability-adjusted life year	NHSSP	National Health Sector Strategic Plan, 2011-2030
DFAT	Department of Foreign Affairs and Trade	PFM	Public financial management
DHS	Demographic and Health Survey	PHD	Partnership for Human Development
DPHO	District Public Health Officers	PNC	Post-natal care
EmONC	Emergency obstetric and neonatal care	PST	Pre-service training
ENBC	Essential newborn care	RACS	Royal Australasian College of Surgeons
EOPO	End of Program Outcome	RMNCH	Reproductive, Maternal, Neonatal and Child Health
FMP	Family medicine program	SAMES	<i>Servicio Autonomo de Medicamentos e Equipamentos de Saude</i>
FP	Family planning	SBA	Skilled birth attendant
GDP	Gross domestic product	SCD	Safe and clean delivery
GOTL	Government of Timor-Leste	SISCa	<i>Sistema Integrado Saude Comunitaria</i>
HAI	Health Alliance International	SnF	<i>Saude na Familia</i>
HF	Health facility	STG	Standard treatment guideline
HNGV	Guido Valadares National Hospital	TA	Technical assistance
HP	Health post	TL	Timor-Leste
HR	Human resources	TLHIS	TL Health Information System
INS	<i>Instituto Nacional Saude</i> (National Institute of Health)	UN	United Nations
IPA	Improvement Plan of Action	UNFPA	UN Fund for Population Activities
IST	In-service training	UNICEF	United Nations Children's Fund
JSI	John Snow International	UNTL	National University of Timor-Leste
KEQ	Key evaluation question	WASH	Water/Sanitation/Hygiene
KOICA	Korean International Cooperation Agency	WHO	World Health Organization
KPI	Key performance indicator		
MCH	Maternal and child health		



## BACKGROUND

Australia is the largest external development partner in Timor-Leste (TL), investing more than AUD 97 million this year and AUD 1 billion since 1999. With partnership as a key guiding principle, Australia has been supporting a bilateral health program since 1999. Current investments, for which AUD7.5 million is provided in the 2017-2018 financial year, are as follows:

**AUD 8.8 million (2015-2018) to Marie Stopes Timor-Leste (MSTL)** to increase demand for and uptake of quality, comprehensive, non-judgmental sexual and reproductive health (SRH) services in 12 municipalities in partnership with the Ministry of Health (MOH) and others.

**AUD 2.8 million (2015-2018) to Health Alliance International (HAI)** to improve midwives' skills in Safe and Clean Delivery (SCD) and Essential Newborn Care (ENBC) through an innovative competency based approach known as Learning Labs in partnership with the National Health Institute (*Instituto Nasional Saude* (INS) in municipalities.

**AUD 1.1 million (2015-2018) to Health Alliance International and Catalpa International** for 'Liga Inan', which uses mobile phones to facilitate communication between health workers and mothers. Messages delivered through Liga Inan encourage pregnant women to seek advice from midwives, use antenatal care (ANC), deliver their babies with a trained health professional, and seek postnatal care (PNC).

**AUD 7.0 million to the Royal Australasian College of Surgeons (RACS) for the Australia-Timor-Leste Assistance to Secondary Services Phase II (ATLASS II), 2015-2018**, to provide clinical expertise and postgraduate courses to improve the clinical competencies of junior doctors, including future general practitioners and specialists in Surgery, Paediatrics, Obstetrics, Anaesthesia and Emergency Medicine.

**AUD 2.1 million (2015-2018) for Ambulance and Health Transport Services strengthening** to support MOH in developing systems to ensure health transport is available to patients needing urgent care, of whom about 35% are women in labour. The all-Timorese workforce includes call centre staff, trained paramedics, a midwife, a doctor, mechanics and administrators to support a fully functioning fleet of ambulances.

**AUD 2.24 million for technical assistance (TA)** (i) full-time, to strengthen the health management **information** system by improving the quality, availability and use of health data for and from health managers and health workers in the network of community health centres and health posts; and (ii) part-time, to improve competences of MOH finance managers, including developing a training curriculum for MOH use.

See Annex 1 for further details of projects. Administratively, this portfolio of DFAT-managed bilateral investments transitioned into the multi-sectoral Australia Timor-Leste Partnership for Human Development (PHD), which was officially launched in March 2017. The goal of PHD is 'improved well-being of all people in Timor-Leste' and the bilateral health investments listed above now constitute the 'health pillar' of the wider PHD program.

## OBJECTIVES

An independent review of the bilateral health program was undertaken in 2017 to help guide future programming decisions.

The Review was expected to:

- (i) assess performance of current investments, and identify needs and gaps across maternal and child health in TL at primary healthcare level and referrals;
- (ii) assess the relevance and appropriateness of the range of bilateral investments currently supported by Australia, identifying potential strategic opportunities to improve the supply and demand of maternal and child health, given the context and budget; and
- (iii) identify improvements and provide recommendations on key findings and approach for future PHD/Australia's health sector investments in TL.

The scope of the Review is limited to health sector investments under the DFAT bilateral aid program since 2013 (see Annex 1). It does not include health initiatives funded from other DFAT sources, which amounts to an additional AUD 3 million per year. The Review focuses on: effectiveness of existing investments; strategic relevance and appropriateness of the investment mix and size of modalities; and sustainability of outcomes.

## METHODS

The Review Team comprised two international specialists (Team Leader/Health System Specialist and Monitoring and Evaluation (M&E) Specialist), a national health specialist and a representative of the TL MOH. The methods used (see Annex 2 for details) included:

- a desk-based review of program documents and other literature, as the basis for developing a Review plan focused on the following Key Evaluation Questions (KEQ):
  1. What are the strengths and gaps in the health sector that affect reproductive, maternal, neonatal and child health (RMNCH) in TL?
  2. How well do the objectives of the DFAT/PHD investments align with the priorities of the health sector in TL?
  3. To what extent have DFAT/PHD investments increased utilisation of RMNCH services?
  4. To what extent have DFAT/PHD investments improved range, quality and reach in provision of RMNCH services?
  5. To what extent have DFAT/PHD investments strengthened the health system to respond to RMNCH needs (enabling environment)?
  6. To what extent are DFAT/PHD investments in RMNCH the right mix of approaches and partners to contribute to MCH goal? Is resourcing adequate to effect change?
  7. To what extent are DFAT/PHD investments in the health sector coherent?
  8. To what extent are achievements of the DFAT/PHD investments likely to be sustained?
  9. Given the objectives of DFAT/PHD in the sector, what has been learned that could improve existing or new investments in health?
- meetings with a broad range of stakeholders (see Annex 3) using semi-structured consultation guides (n=39 meetings involving more than 90 people);
- visits to three municipalities (Aileu, Ainaro, Bobonaro) to gain a decentralised and frontline perspective as the basis for municipality case studies;
- direct observations in five health facilities (HF), including Health Posts (HP), Community Health Centres (CHC) and Referral Hospital, and at three transport facilities;
- focus group discussions (FGD) held separately with women and men in two communities, each FGD involving roughly six to 12 community members; and

- a collaborative stakeholder workshop with over 40 participants representing Government of TL (GOTL), Implementing Partners (IP), United Nations (UN) agencies and others to validate preliminary findings and make suggestions for improving the program.

The methods had the following limitations:

- Because MOH senior staff were busy in meetings with the new Minister of Health and the timetable for meetings was quite tight, it was not possible for the team to meet with a few of the stakeholders who had originally been targeted.
- The presence of a member of MOH in the Review team and PHD observers in meetings with stakeholders might have influenced their responses and inhibited them from speaking frankly.
- Full results of the 2016 Demographic and Health Survey (DHS 2016) had not yet been released, so availability of recent high-quality population-based survey data was limited.
- The reliability of routine data is uncertain (see Municipality case studies, Annex 8).
- The date of the validation workshop had to be changed at short notice, so participation might have been affected.
- Evidently there was no overarching M&E framework for the program, though there was a strategic framework for part of it from 2015.
- Individual project results against outcome indicators were not provided to the review team in a consolidated format and reporting formats for the projects were not standardized. Some of the project annual reports for 2013-2016 were not available, and challenges in obtaining and/or interpreting some of the project reports required time-consuming email exchanges.
- The need for translation in some meetings reduced the amount of information that could be obtained in the time available.
- Participation of national Review team members was in some instances constrained at short notice by the needs of their organizations.

## FINDINGS

Annex 4 is a summary of the preliminary findings that were validated by stakeholders at the workshop on 13<sup>th</sup> October. More detailed findings, based on the above KEQs, are set out below, together with the following source codes:

Source code:	Method:
A. GOTL (MOH, UNTL, HNGV and SAMES)	Interviews
B. DFAT/PHD program IPs/TAs	Interviews and document review
C. UN agencies	Interviews
D. Bilateral donors and their IPs (USAID/JSI, KOICA)	Interviews
E. Municipalities (general, health)	Interviews
F. Hospitals	Interviews and observations
G. CHCs	Interviews and observations
H. HPs	Interviews and observations
I. <i>Suco</i> /village council and Mother Support Groups (MSG)	Interviews
J. Community members	Focus group discussions
K. Health professionals associations	Interviews
L. NGOs (ANCP and St John of God)	Interviews

M. Team members or Strategic Adviser to the Review	Meetings
N. DFAT	Interviews
O. PHD staff	Meetings, email exchanges

## 1. Strengths and gaps in the health sector that affect RMNCH in Timor-Leste

### Sources

#### General

Timor-Leste is a new nation, post-conflict but peaceful and fairly stable. Its democratic institutions, free press and free speech are important strengths. On the other hand, its economy is heavily dependent on oil and gas and hence vulnerable to the vagaries of global commodity markets; at present, fiscal space is tightening.<sup>3</sup> Much of the rural population is socio-economically disadvantaged and dispersed across a challenging terrain. Roads are improving but many rural people remain relatively isolated.

In the recent past, RMNCH outcomes in TL compared unfavourably with those of other countries in the region and countries with similar income per capita.<sup>4</sup> Within TL, there were inequalities in RMNCH outcomes and inequities in RMNCH service delivery, especially for maternal health.<sup>5</sup>

Although there is some uncertainty about recent estimates, TL's infant and child mortality rates have each apparently declined by about one-third since 2009-10.<sup>6</sup> Neonatal mortality has decreased by only 14%, and neonatal deaths now account for almost half of all deaths among children under five years of age (an increase from 34% in 2009-10).<sup>7</sup> The current maternal mortality ratio (MMR) is unknown at the time of writing,<sup>8</sup> but trends in maternal and neonatal health outcomes tend to be linked as both are highly reliant on health system functionality.

The most notable recent RMNCH-related trend is in malaria incidence, which fell from 32 per 1000 to virtually zero over the past five years<sup>9</sup>, leaving the country poised for malaria elimination. The reduction in malaria would be expected to benefit maternal outcomes as well as infant and child mortality.

Total fertility rate (TFR) decreased from 5.7 in 2009-10 to 4.2 in 2016,<sup>10</sup> an impressive trend which would be expected to have favourable implications for the health of both children and mothers.

With regard to coverage of key RMNCH services, since 2009-10 there was also:

- a 4% increase in use of family planning (FP), substantial reduction in unmet need for FP (from 32% to 25%) and an increase in need met with modern methods;
- little change in the proportion of women receiving 'any ANC', which remained well over 80%;

<sup>3</sup> Hou and Asante, 2016

<sup>4</sup> WHO, 2015.

<sup>5</sup> Ly, 2012

<sup>6</sup> 'Mortality in the 2016 TL DHS may be underestimated' and these 'results should be considered with caution' (DHS, 2016).

<sup>7</sup> DHS, 2016

<sup>8</sup> There is debate about DHS 2016 findings for MMR and further analysis is underway. In 2009-10, MMR was 557 per 100,000 live births; the adjusted estimate for 2013 was 270, with a 'range of uncertainty' between 140 and 500.

<sup>9</sup> Ministry of Health Timor-Leste, 2017

<sup>10</sup> DHS, 2016

- an increase in women having four antenatal care visits (ANC4), from 55% to 77%;
- an approximate doubling in deliveries with skilled birth attendants (SBA) and births at HFs nationally (with both of these indicators being positively associated with maternal education and wealth); and
- an increase in postnatal care (PNC) within 2 days of delivery from 25% to 35%.<sup>11</sup>

See Annex 5 for details.

Despite these encouraging trends, there is still considerable room to improve RMNCH outcomes. As of 2012, ‘maternal, neonatal and nutritional’ causes accounted for vastly more disability-adjusted life years (DALY) than any other ‘broad cause group’ in Timor-Leste;<sup>12</sup> although updated estimates of the burden of disease are not yet available from the World Health Organization (WHO), this overall picture has probably improved only slightly in the past five years. RMNCH outcomes are affected by the functionality of the health system, which is fundamental to the quality and sustainability of all thematic programs and spans demand and supply sides. Individual health system elements and their implications for RMNCH are explored in turn below, **based on the five objectives in the TL health sector M&E framework and reflecting the priorities of the National Health Sector Strategic Plan (NHSSP), 2011-2030.**<sup>13, 14</sup>

## Stewardship

GOTL’s health sector now has a larger number of autonomous agencies than it had in the past. MOH has become more assertive in its ownership of the country’s health agenda. The new Minister of Health is very experienced and highly respected. A, M

Governance involves coordination both within GOTL (across sectors and between administrative levels) and between the GOTL health sector and other partners (donors, IPs, private sector). Compared to five years ago, there seems to be greater goodwill and trust in relationships between MOH and external partners. M

MOH now wants to have ‘one window’ for coordination of partners. It is developing a manual for harmonisation of external support and will seek TA to support harmonisation at national and municipal levels. It also intends to harmonise the way partners provide TA. A

GOTL provides approximately 70% to 90% of the country’s health care.<sup>15</sup> Private-for-profit health care providers are concentrated in urban areas. Many non-government organisations (NGO) also support the delivery of health care, mostly with donor funding and often at a small scale, in all municipalities.

---

<sup>11</sup> DHS, 2016

<sup>12</sup> WHO, 2015

<sup>13</sup> Timor-Leste Health Sector M&E Framework

<sup>14</sup> Ministry of Health Timor-Leste, 2011

<sup>15</sup> Estimates vary over time and depending on methods used. In 2007-08, 89% of care was sought in the public sector according to the World Bank (2014). The NHSSP says ‘... private clinics may be handling a quarter of basic health service delivery’ (MOH, 2011). Private expenditure on health as a percentage of total health expenditure was 29% in 2011 according to Fabricant (2013), while Hou and Asante (2016) say that 92% of all health spending in TL in 2013 was by government.

Accountability – ultimately to citizens, for use of resources and results achieved - is an important aspect of governance, and GOTL is vigorously pursuing an anti-corruption agenda. In TL there are formal and informal channels for holding government accountable; some of the informal ones – e.g., posting on social media or complaints to politicians - may have more rapid and dramatic effects than the formal channels. A Quality Control unit exists in MoH and a complaints system is now being piloted; responsibility for dealing with complaints rests with line departments.

A, B, O,

The Ministry of Health have a comprehensive definition of HF readiness<sup>16</sup> and consider it as vital to quality of RMNCH services, but since it involves many players and processes, there is no identified specific locus of accountability for it.

A, M

For years there have been challenges to coherence and integration between the national and municipal levels of the health sector. Now that decentralization has begun, MOH intends to post ‘delegations’ to each municipality to coordinate between the line ministry and the Municipality Health Directors (who are now employed by the Ministry of State Administration).

A, M

The National Health Sector Strategic Plan (NHSSP) is quite broad in scope but gives due emphasis to RMNCH.<sup>17</sup> While NHSSP identifies equity as a core value,<sup>18</sup> health infrastructure and health workers are inequitably distributed, and rules regarding the services that can be offered at HPs and CHCs constrain access by rural people. The Basic Services Package (BPC) calls for emergency obstetric and neonatal care (EmONC) in almost all facilities, but availability of EmONC is very inequitable at present.<sup>19</sup>

A, B, C,  
M, N

NHSSP is now in its second five-year phase, which is devoted to ‘Consolidation’ of the initial ‘Conditioning’ phase. Priorities for the Consolidation period include: revising the policy framework to reflect changes in health status; building capacity at all levels for health planning and budgeting, reporting, monitoring and evaluation; and developing and deploying human resources for the districts.<sup>20</sup> Hence MOH is revisiting a number of policies (including those for health financing and human resources) and is now planning to review the overall configuration of the health sector (i.e., infrastructure, human resources and services) as the basis for strategic direction in subsequent years.

A

## Management

GOTL’s budget for health is much lower than the internationally recommended benchmark of 5% of GDP.<sup>21</sup> The GOTL health sector budget of USD 73 million for 2017 is 5% lower than it was 2 years ago, and accounts for only 5.4% of total national budget.<sup>22</sup>

B

The current GOTL health budget nonetheless amounts to more than \$60 per person per annum. Although aid for health is decreasing, the total funding envelope (i.e., including health sector aid from all donors) is approaching the level of USD 86 per capita that is estimated to be required on average for Universal Health Coverage (UHC), according to the Centre on Global Health Security Working Group on Health Financing.<sup>23</sup>

B, N

Salaries now comprise an increased proportion of the national health budget at the expense of goods and services, leaving less money to cover operational costs.<sup>24</sup> GOTL health spending is not generally pro-poor and the additionality of aid to the health sector

A, B, E, I,  
J, K

<sup>16</sup> MOH Timor-Leste, MoH Monitoring and Evaluation Guideline for Health Sector, Timor-Leste, p53-65

<sup>17</sup> MOH Timor-Leste, 2011, p 46-47

<sup>18</sup> MOH Timor-Leste, 2011, p 19

<sup>19</sup> MOH Timor-Leste, 2016.

<sup>20</sup> MOH Timor-Leste, 2011, p 18-21

<sup>21</sup> This target that has already been achieved by some middle income countries and even a few low-income countries, e.g. Rwanda (Rottingen et al, 2014).

<sup>22</sup> PHDATL, 2016b

<sup>23</sup> This international body also says, however, that ‘Most middle-income countries should be able to reach both targets [ i.e., 5% of GDP and USD 86 per capita ] without external support.’ (Rottingen et al, 2014)

<sup>24</sup> Hou and Asante, 2016



is low.<sup>25</sup> There is considerable scope for reducing inefficiencies in use of GOTL health resources.

Relative to other ministries, Health is quite advanced in PFM. While MOH program based budgeting is good in principle, it creates extra layers of accounting and reduces flexibility. There is no longer a Medium Term Expenditure Framework (MTEF) for joint forecasting, planning and management of all health sector resources by MOH and donors. Although MOH has information on program expenditures at each level of the system, it is not able to calculate how much it currently spends on RMNCH or how much it would cost to provide such services to all who need them.

B, C, M

Decentralisation and program based budgeting (which is applied at both central MOH and municipal level) have slowed the disbursement of resources for CHCs. The municipal level of the health sector gets funds from MOH for program costs and from the municipal administration for operational costs. To improve absorption and efficiency, MOH wants to develop integrated planning at municipality level to make use of funds from both sources in a way that leaves no gaps or overlaps.

A, B

The combined effects of decentralization and anti-corruption measures now pose daunting challenges to health sector managers at central and municipality level and in CHCs. Many of these health sector middle-level managers are former clinical staff who have had little or no training as managers and cannot confidently or correctly perform key functions of planning, organising, activating and controlling. Yet middle-level managers face draconian legal penalties if they misuse even small amounts of money; at the same time, decentralization is making them responsible for an increasing range of decisions involving more resources. Unsure of the extent of their authority, many middle-level managers hesitate to make decisions or deploy resources lest they inadvertently transgress.

B, D, K, M

Even at more senior levels, health sector managers and directors (in both MoH and hospitals) lack training and skills commensurate with their responsibilities. INS provided short courses in management for health sector managers in the past, but at present they receive no such support.

A

In spite of the weaknesses in management, a culture of evidence-based planning, management and M&E is gradually emerging at national level. There is now an M&E framework for NHSSP, which focuses on 33 key performance indicators (KPI) including RMNCH indicators (CPR, ANC1, ANC4, SBA, delivery in HF, PNC, etc). Non-GOTL HFs are supposed to report through the TL Health Information System (TLHIS) but the extent of compliance varies. Reporting is currently paper-based and timeliness and quality of data impact on the use of information. In general, routine data quality seems to be improving with the introduction of TLHIS, but there is still room for improvement (see Annex 8).

B, M

Use of information seems less strong at municipality level (ie, information is seen as something that 'goes up' to MOH, and managers do not seem to know the current status of the KPIs for their municipality (see Municipality case studies, Annex 8).

E

In 2015 GoTL launched *Saude na Familia* (SnF) to deliver a comprehensive package of primary healthcare to every household.<sup>26</sup> SnF is geared to improving collection and management of patient data and should thereby improve patient care. If health facility staff update the SnF registration and classification of each household member (as either healthy, at risk of illness, sick, or having a disability) every quarter (as planned), SnF will work, in effect, as a rolling census.<sup>27</sup> SnF also tracks supplies of drugs and consumables in HFs through a database that operates in all HFs, including hospitals.

M

---

<sup>25</sup> World Bank, 2014

<sup>26</sup> Under SnF, a team of health professionals (doctor, midwife, and nurse) visits each household to help individuals, families and communities to understand their situation and enhance their access to health care (MOH, nd).

<sup>27</sup> Some stakeholders see SnF and TLHIS as duplicative, while others see them as serving different objectives; many remain unclear as to what SnF will and won't do.

MOH policy is to conduct maternal death audits (MDA) in communities and in HFs in order to learn why these deaths occur and take action to prevent them in future. The UN Fund for Population Activities (UNFPA) and World Health Organization (WHO) are supporting MDA, but it has not yet been widely implemented. C, M

### Infrastructure, equipment, supplies and transport

GoTL HFs now include 252 HPs and 59 CHCs, but their geographic distribution is inequitable.<sup>28</sup> Some HPs are said to be under-used, yet half of all *sucos*/villages have no HP and so rely only on *Sistema Integrado Saude Comunitaria* (SISCa) and mobile clinics. B

MOH Primary Health Care Guidelines include standards for readiness of HFs at all levels (i.e., 80% score on the relevant Supportive Supervision checklist) but only 17% of CHCs and 4% of HPs meet these standards.<sup>29</sup> Many HFs lack basic amenities (eg water or electricity), require renovation/repairs, and/or lack functioning equipment, medicines or basic consumables. These gaps, which change over time – e.g., as supplies are received and consumed and new defects arise as others are repaired – adversely affect HF readiness to provide quality RMNCH services. Ability to improve HF readiness is constrained by a range of factors, including but not limited to insufficient funding for health at municipal level (see Annex 8). A, E, G, H

It seems paradoxical that while accountability for small sums is strictly enforced, there is virtually no specific locus of accountability for HF readiness – in other words, there appear to be no incentives to ensure HF readiness or penalties for failing to do so. M

Transport is vital for outreach, SISCa etc but remains a challenge for many HFs, especially as multifunction vehicles (MFV) in use for many years begin to reach the stage where it is no longer feasible to fix them (see Annex 8). The ambulance service, which is currently being supported and directly based at the Ministry of Health, works well, but much of the existing fleet will soon need to be replaced. A, B, E, G

Frequent stock-outs adversely affect the quality of RMNCH services.<sup>30</sup> *Servicio Autonomo de Medicamentos e Equipamentos de Saude* (SAMES) – which procures, stores and distributes pharmaceutical supplies and minor health equipment – still needs to be capitalised (\$3m) but prior to that the procurement law and SAMES statute need to be revised. WHO and the Australian Embassy Innovation Exchange Fund each provide an adviser to SAMES, and as part of GAVI's transition out of TL (by the end of 2018) there is support to strengthen forecasting (by MOH) and procurement (by SAMES). A, C, M

The World Food Program (WFP) is supporting SAMES to introduce mSupply software to central stores and regional warehouses. Subject to securing additional funds, WFP will help SAMES extend mSupply to HPs. While use of mSupply is expected to improve supply chain management it is not yet clear how it will link with the inventory tracking component of SnF. One of the challenges in using mSupply is poor internet connectivity, which prevents real-time data entry and leads to gaps in recording and reporting. A, C

### Health workforce

TL's 2015 Rural Health Staffing Initiative calls for a minimum of seven staff in each HP: one doctor, two nurses, two midwives, one laboratory technician, and one pharmacist.<sup>31</sup> A recent World Bank analysis, however, shows that this model is 'not fiscally viable or necessary'; it also points out that at present 'it is difficult to justify the existing staffing

---

<sup>28</sup> MOH Timor-Leste, 2017

<sup>29</sup> MOH Timor-Leste, 2017

<sup>30</sup> MOH Timor-Leste, 2017

<sup>31</sup> MOH, 2015

levels given the current workload’ and that even if there is ‘a dramatic increase in demand for services...it is difficult to argue that health staff are overworked overall’.<sup>32</sup>

The total number of doctors is ample now that hundreds of newly returned Cuban-trained doctors have been deployed across the health system, but their distribution is uneven: doctor-to-population ratios ranged from 1:630 in Dili to 1:1239 in Manatuto and 1:3000 in Ermera in 2014.<sup>33</sup> Moreover, many stakeholders raised the issues of the adequacy of new doctors’ clinical skills especially when working with limited clinical supportive supervision.

A, B, N

Other key RMNCH cadres, including midwives and nurses, are less plentiful than doctors but no less inequitably distributed. In Dili the ratio of nurses to population was 1:544 in 2014, while outside of Dili it was 1:1494; in the same year, ratios of midwives to population ranged from 1:2353 in Dili to 1:5424 in Oecusse and 1:9208 in Ermera.<sup>34</sup> Many HPs do not have midwives.<sup>35</sup>

A, K

National systems for training health professionals are adversely affected by current institutional relationships between the National University of Timor-Leste (UNTL) and Guido Valadares National Hospital (HNGV). HNGV is still developing as a teaching hospital. Similarly the pre-services (PST) training at UNTL is still lacking various resources (e.g. proper library and practical laboratory, etc) to ensure comprehensive competences of its graduates. Consequently, many graduates enter the workforce without suitable competences. This can put both patients and health workers themselves at risk.

A, B, K,  
M

At present, INS is the only body that can certify health workers’ competences. INS is responsible for all in-service training (IST) but it gets very little funding from GoTL and relies almost entirely on donor resources.

A, M

In some cases, IST is provided to equip health workers who have already been deployed to HFs with basic skills they should have acquired in PST. Although there is an argument for such interventions, they probably also ‘enable’ the continuation of the weak institutional relationships that stand in the way of robust PST.

K, M

MOH is now developing a strategic plan for Human Resources (HR) management. Aspects of staffing will also be covered in the ‘configuration’ review planned by the new Minister.

A, N

## Service delivery

At community level, people are increasingly aware of RMNCH services and of the benefits of using them, but some cultural barriers, indirect costs, opportunity costs and transport challenges affect uptake, especially in remote areas, even though the services are provided free of charge. Community engagement in health related governance is low; while *Suco*/village councils have a mechanism through which people can raise concerns or make complaints about health care quality, some people appear to be unaware of it or reluctant to use it. Gender differences are probably a factor in this, as women have more contact with health services but less influence in *Suco*/village councils.

E, I, J

The continuum of RMNCH care includes FP, ANC, care at delivery and PNC. Inequities in coverage of RMNCH services within TL are especially evident for care at delivery.<sup>36</sup>

Skilled care at delivery ranges from Safe and Clean Delivery (SCD) and Essential Newborn Care (ENBC) for normal deliveries to EmONC for births with complications. Unless obstetric complications can be addressed, impact on maternal mortality will be limited: international research shows that met need for EmOC is inversely correlated with

---

<sup>32</sup> Hou and Asante, 2016

<sup>33</sup> Hou and Asante, 2016

<sup>34</sup> Hou and Asante, 2016

<sup>35</sup> MOH Timor-Leste, 2017

<sup>36</sup> Ly, 2012

maternal mortality ratio<sup>37</sup> and provision of EmOC and a functional system for referral and transportation can significantly reduce maternal mortality.<sup>38</sup> EmONC interventions are relatively complex, however, and in TL access to EmONC often depends on emergency referral from homes or lower level HFs to hospitals.

While the number of Comprehensive EmONC (CEmONC) facilities in TL (i.e., six hospitals) meets the international benchmark, seven municipalities have no EmONC and at least a third of all CHCs are more than two hours from any EmONC. The ‘missing middle’ is the gap in Basic EmONC (BEmONC): not enough facilities offer it and the two that do are both in Dili. Hence while about half of all deliveries are now in HFs, only half of all HF deliveries are in EmONC HFs.<sup>39</sup> This gap reflects weaknesses in all elements of the health system. An EmONC Improvement Plan of Action (IPA) has been developed by UNFPA in close consultation with MOH but MOH has not yet approved it for implementation.

A

### Summary of strengths and gaps

To summarise the above analysis of strengths and gaps: infant and child mortality declined markedly in recent years while neonatal mortality barely changed and the current maternal mortality ratio is unknown. Both maternal and neonatal health are heavily reliant on health system functionality. Within TL’s health system, a culture of evidence-based planning is gradually evolving, but decentralisation poses new challenges to robust implementation, especially at municipality level, where management capacity is limited, accountability is somewhat distorted, and citizens’ engagement in governance is low. GOTL health spending, as a percentage of GDP, is below international benchmarks but total funding may nonetheless be adequate for UHC if efficiency improves. While recent growth of the medical workforce is welcome, many new doctors lack adequate clinical competences for RMNCH; poor skills are also common in other key RMNCH cadres, and distribution of health professionals is very inequitable. Gaps in infrastructure, equipment and supplies contribute to low health facility readiness, which undermines access to quality services.

## 2. Alignment of DFAT program objectives with health sector priorities

Sources

In developing the current program of work, DFAT engaged with MOH and responded to MOH requests. Based on design documents from 2013 and 2015,<sup>40</sup> the Review team inferred that the goal of the DFAT bilateral health program is to reduce maternal and child mortality, and that progress will be assessed against relevant national impact level targets. The inferred end-of-program outcomes (EOPOs) are:

M

- health care providers offer a wider range of higher-quality sexual, reproductive, maternal, neonatal, infant and child health (RMNCH) services;
- people make greater use of RMNCH services and adopt recommended RMNCH behaviours; and

<sup>37</sup> Holmer et al, 2015

<sup>38</sup> WHO, 2013

<sup>39</sup> Timor-Leste Second EmONC Need Assessment, 2016

<sup>40</sup> EOPOs had been agreed for each of the program’s five projects in 2013. In 2015, the DFAT health team developed a Strategic Framework for three of these investments, which specified seven EOPOs for 2018, with 2015 as a baseline. It seems that other projects and the two TAs were managed separately.

- TL's health system is more efficient, equitable and accountable in achieving the above.<sup>41 42</sup>

In terms of health system elements, the DFAT/PHD TAs advise MOH on aspects of Management (health information and PFM). The five projects focus on aspects of: Infrastructure (Health Transport); Health Workforce (SRH, Learning Labs and ATLAS II); and Service Delivery (SRH and Liga Inan).

In thematic terms, the DFAT/PHD program is on the whole aligned to supporting some of the RMNCH priorities that are set out in NHSSP and seen globally as vital parts of an evidence-based continuum of care for RMNCH,<sup>43</sup> i.e. FP, ANC, care at delivery, postnatal care and child health interventions.<sup>44</sup> In other words: MSTL supports provision and uptake of FP (including through the youth hotline, marketing and education); HAI fosters skills for care at delivery and PNC, Catalpa International and HAI (Liga Inan) promotes uptake of services across much of the continuum of care; RACS (ATLAS II) develops doctors' expertise in Family Medicine (including RMNCH care) and in other key specialties; and the health transport program improves access to maternal and neonatal care in emergencies.

A, B, N

Program activities are necessary but not sufficient to ensure HF readiness for RMNCH services and foster their increased use.<sup>45</sup> Similarly, the TA component of the program, which responds to needs expressed by MOH, is necessary but not sufficient to ensure a robust 'enabling environment' within the health system. Current program activities may or may not align well with strategies and plans that GOTL are currently developing for decentralization, HR management, EmONC, etc.

Within the program, individual projects' indicators were not well aligned with the sector M&E framework, which was work in progress when the projects were designed. MOH is now calling for PHD (and all Donor Partners) to harmonise allocation and release of funds, communicate regularly with MOH and conduct integrated supervision of the PHD program.

A, B

### 3: Extent to which DFAT investments have led to increased utilisation of RMNCH services

#### Sources

**General:** Utilisation of RMNCH services is the focus of EOPO1 in the DFAT strategic framework for 2015-18 (see Annex 6).<sup>46</sup> As shown in Annex 6, the 2016 targets for this EOPO were fully or partially met.

**FP:** There have been improvements in use of FP and significant changes in method mix.<sup>47</sup> Much of this is likely due to MSTL efforts in partnership with MOH and demand generation by MSTL educators<sup>48</sup>. However, mother support groups (MSG) are also active

B, E, G,  
J, L

<sup>41</sup> Review Plan, 2017

<sup>42</sup> After the Review Plan was agreed and the Review team was well into its work in country, PHD approved a revised Monitoring, Evaluation and Learning Framework with new EOPOs, i.e., Sustainable improvement of quality, client-centred and inclusive RMNCAH services based on approved standards; Adolescents, men and women adopt targeted health behaviours; and Adolescents, men and women of reproductive age including PWDs [ people with disabilities ] utilise appropriate RMNCAH services. These were not used in the Review but are provided here for information.

<sup>43</sup> Partnership for Maternal, Neonatal and Child Health, 2011

<sup>44</sup> NHSSP p 46-47

<sup>45</sup> Note that while HF readiness is not an EOPO, it is essentially an assumption that affects the first and second EOPO, and is greatly affected by the third EOPO.

<sup>46</sup> Note that the DFAT strategic framework relates only to a subset of the entire bilateral health program, so its EOPOs differ from the EOPOs inferred for the program as a whole (see Section 2).

<sup>47</sup> DHS, 2010; DHS, 2016

<sup>48</sup> Note that the DFAT program's 2016 targets for FP were only partially met (see Annex 6) while those for earlier years were achieved in full (see Annex 7).

in raising awareness and stimulating demand for services including FP.<sup>49</sup> Despite progress, it is still difficult for single women to access FP owing to community norms and/or the personal values and attitudes of HF staff. In addition, MSTL achieved expectations in other indicators, particularly in the efforts to generate demand for SRH and family planning services. In 2015-16, MSTL reached 41% of callers under 20 years old to Youth hotline (*Lina Foin Sae*), who requested information or counselling on FP and SRH. Similarly, MSTL have provided small education sessions on family planning and sexual and reproductive health for 103,545 people, including people with disabilities.

**ANC:** Routine data indicate that between 2009 and 2016 ANC1 increased from 68% to 79% and ANC4 from 45% to 53%, but the size of the gap between these indicators didn't really change.<sup>50</sup> The 2016 TL DHS results, by contrast, show no increase in ANC1 and a narrowing gap between ANC1 and ANC4.<sup>51</sup> Progress against ANC-related EOPO1 targets presents a mixed picture, with progress falling short of target values in three out of four instances (see Annex 6). Many factors affect ANC uptake, i.e., ease of access, perceptions of quality of care as well as awareness of ANC importance. Program interventions (e.g., Liga Inan) as well as other activities (e.g., MSGs) probably contributed to increased uptake.

A, B, E,  
G, L

**Care at delivery:** Based on both routine information and DHS results, trends in deliveries with skilled attendants and in HFs are stronger than those for use of ANC. The relevant 2016 targets for EOPO1 in the DFAT strategic framework for 2015-18 were mostly but not entirely met (see Annex 6). According to the Three Delays model, many factors affect uptake of care at delivery, i.e. awareness of importance of skilled attendance and perceptions of quality of care (which affect the First Delay) as well as ease of access (which affects the Second Delay). Several program interventions (e.g. Liga Inan), as well as other activities/facilities (e.g. MSGs and maternity waiting homes) have also probably contributed to increased uptake.

A, E, L,  
M

**PNC:** DHS results indicate an improving national trend in use of PNC from 25% in 2009-10 to 35% in 2016.<sup>52, 53</sup> With regard to 2016 EOPO1 targets for PNC (which focused only on four Liga Inan districts), however, progress was well below expectation (see Annex 6). Many factors affect uptake of PNC, i.e., ease of access, perceptions of quality of care as well as awareness of importance of PNC. Given that program interventions evidently had limited effects on PNC, these activities were probably less important than other (i.e. non-program) activities in contributing to the observed national increase in uptake.

B, C, E, L

Decision-making within families is an important factor in all of the above. Husbands and in-laws influence decisions on FP and on where to give birth (i.e. at home or in HF). MSGs could also have contributed to utilisation of any or all of the above services. Family Medicine Program (FMP) doctors (i.e. general practitioners) trained by the program might have contributed to any or all of the above, but the effect would be limited since only a small number have been deployed to date.

A, F

We have no current information on use of non-government HFs, but it is probably still true (as pointed out in NHSSP) that they are used more by the non-poor than by the poor.<sup>54</sup>

<sup>49</sup> In some communities there is Australian NGO Cooperation Program (ANCP) funding for MSGs.

<sup>50</sup> Ministry of Health Timor-Leste, 2017

<sup>51</sup> DHS, 2010; DHS, 2016

<sup>52</sup> Ministry of Health Timor-Leste, 2017

<sup>53</sup> DHS, 2010; DHS, 2016

<sup>54</sup> NHSSP, p 11



## 4. Likely contribution of investments to improved range, quality and reach of RMNCH services

### Sources

**General:** This section relates to EOPO 2, 3 and 4 in the DFAT strategic framework for 2015-18 (see Annex 6).<sup>55</sup> From a total of 12 indicators for these three EOPOs, three do not specify targets for 2016, while in six instances targets were met or exceeded; two targets were not met, and for the remaining target no results were provided. Note that the strategic framework does not cover the ATLASS II or Health Transport projects, which are also relevant to the range, quality and reach of services. Results for these projects are provided in Annex 7.

**Range:** The DFAT/PHD program, through MSTL, enables MOH to offer FP clients an informed choice from an expanded range of contraceptive methods (including 'natural', hormonal and barrier methods). The trend toward a more diverse method mix seems to confirm that choice is being broadened successfully. The program is also helping to expand the range of services for care at delivery by developing doctors' competences in EmONC, in addition to regular learning labs on SCD and ENBC for midwives, which are done through HAI's learning laboratory activities.

A, F

**Quality:** There are challenges to routine measurement of quality of care. The program is thought to be improving quality of RMNCH services by strengthening competences of midwives and doctors, in particular for FP, SCD/ENBC<sup>56</sup> (and beyond for FMP) and for handling emergency cases.

A, B, E,  
O

**Reach:** In general, program implementation includes emphasis on inclusion of people with disabilities. The scope of the program's FP activities recently expanded from eight to 12 municipalities, enabling many more people to be reached.<sup>57</sup> The program also helps to improve the reach of RMNCH services by improving functionality of transport (for routine services, such as SISCa for remote communities, and for fetching mothers to and from HFs for delivery - as well as for referrals and emergencies). The Health Transport project has demonstrated that MOH was paying over the odds for maintenance in the past and has shown how repairs can be done much more economically in future; this should enable MOH to extend services and reach more people. Liga Inan helps midwives to reach mothers with information about care before, during and after delivery. While TL's mobile phone networks cover a large proportion of the population and the majority have mobile phones, it is nonetheless possible that Liga Inan has unintended effects on socio-economic inequities.<sup>58</sup> Not only are the poorest and those in remote communities less likely to have phones and/or network access, they are also less likely to have any ANC, and since ANC1 is the gateway to enrolment in Liga Inan the 16% who get no ANC are excluded by default.<sup>59</sup>

D, E, G,  
M

MSTL introduced a midwife coaching model (for improving range, quality and reach of FP services) in Ainara municipality and is evaluating it to assess its effectiveness and suitability for use in other municipalities.

L, O

In relation to all of the above, the weak link is HF readiness: while the program contributes to improving range and quality of services mainly by improving health workers' skills and competences, the abilities gained through training may subsequently decline if those who have been trained cannot fully utilise what they have learned because their HFs lack

B, M, O

<sup>55</sup> See footnote 45 (above), which also applies here.

<sup>56</sup> HAI received an additional AUD 500,000 from DFAT Canberra to introduce an innovative, highly-realistic, low-tech EmONC simulation-based model, based on team training and geared for low resource settings, and to establish municipality-based, fixed skills lab for health provider training.

<sup>57</sup> In 2017 DFAT provided additional funds through the ANCP program to improve reproductive health education in secondary schools.

<sup>58</sup> Sondaal et al, 2016

<sup>59</sup> DHS 2016

essential infrastructure, equipment and supplies. Lack of HF readiness may also diminish trained health workers' motivation to provide high quality services.

## 5. Results of investments in strengthening the health system to respond to RMNCH needs ('enabling environment')

### Sources

**M&E TA:** MOH recognises that the M&E adviser has helped them to design the NHSSP M&E framework, implement the TLHIS, and pilot community-based monitoring (CBM) in the health sector. Whether or not TLHIS is eventually superseded or simply complemented by SnF (see above), improved information, use of information in decision-making and stronger engagement of citizens have great potential to improve governance of the health sector.

A, B

**Public financial management (PFM) TA:** The PFM adviser is engaged with MOH and municipalities on program-based budgeting and decentralisation. By elucidating the challenges posed by these initiatives, his work is helping MOH to identify critical areas for additional support, e.g., among middle-level managers, whose lack of skills undermines sound financial management and decision-making.

A, B

## 6. Suitability of the mix of approaches and partners to contribute to RMNCH

### Sources

DFAT's bilateral health funding of AUD 7.5 million (equivalent to USD 5.8 million) per annum adds about 8% to what GOTL itself contributes to the national health sector budget; this – together with an additional AUD 3.5 million per annum sourced by the Embassy through DFAT's Gender Funds, Innovation Funds, Health Security, Global Funds and GAVI - brings TL closer to the USD 86 per capita international benchmark for UHC (see Section 1). If used judiciously, Australian government funding to the sector should be sufficient to make a meaningful difference in RMNCH. However, the balance of activities within the bilateral program seems skewed in relation to challenges within the sector.

B, N

IPs funded by the Australian Government do not necessarily work in municipalities with the greatest needs. MoH would like more say in where partners work, in line with the example of John Snow International (JSI), which agreed to work in Covalima at the request of MOH.

A, C, M,  
O

MSTL has used its long history in TL to build local knowledge and relationships. Although there are some concerns at central level about coordination between MSTL and MOH, it seems to be a very trusted partner at municipality level.

A, E

MSTL's budget is the largest of any partner in the DFAT/PHD program, and its cost per Couple Year Protection (CYP), at USD 43, is quite high in relation to averages for other regions.<sup>60</sup> However, owing to its conservative social and policy environment TL is a challenging environment in which to support FP; moreover, the country is now entering a period in which rapid growth in FP uptake can occur,<sup>61</sup> and MSTL's recent expansion from eight to 12 municipalities should permit some economies of scale. Globally, the benefit-cost ratio for FP programs ranges from USD 90 to 150; these rates of return for each dollar spent on FP make it a very worthwhile investment.<sup>62</sup>

B

With regard to HR skills and competences, the HAI Learning Labs (LL) initiative has performed well against its targets (see Annex 6 and Annex 7) and will soon have reached

D, M, O

<sup>60</sup> Singh and Darroch, 2012

<sup>61</sup> FP2020, 2016

<sup>62</sup> Kohler and Behrman, 2014

midwives in all target municipalities.<sup>63</sup> However, LL trains midwives using mannequins rather than with actual patients; while this simulation helps to improve skills it is only one of several elements – others being clinical and supportive supervision, audit and feedback - required to develop clinical competences.

ATLASS II postgraduate medical training, led by RACS, helps to meet RMNCH goals mainly by producing FMP doctors. The competences of FMP doctors are appreciated by HNGV as well as MOH and the municipalities, and many more FMP graduates are needed.

E, G, M,  
N

ATLASS II also aims to contribute to better RMNCH by producing specialists, particularly in obstetrics and paediatrics. Since it takes a relatively long time to train such specialists, there is a justification for fast-tracking their training, but, there is no MOHHRH workforce plan to guide the assessment of TL needs., ATLASS II has already exceeded its 2018 target for number of trainees enrolled for postgraduate diplomas in anaesthesia, surgery, paediatrics, obstetrics/gynaecology or internal medicine, and has met its 2018 target for trainees enrolled in the Master of Medicine in paediatrics<sup>64</sup>. In this respect it is 'ahead of its time', especially in view of the limited ability of the system to support graduates – even FMP doctors – to practice.<sup>65</sup>

During the Review, various stakeholders offered different interpretations of the status of an embargo imposed by the Ministry of Education in 2013 to restrict the proliferation of postgraduate courses. Some cited letters from GOTL indicating the embargo had been lifted while other senior interlocutors said that although an exception was made for ATLASS II students, the embargo is technically still in force. This may boil down to nothing more than a fine semantic distinction, but it is unhelpful if there is continued confusion on this point.

A, B, N,  
O

In any case, fees charged by UNTL for the ATLASS II postgraduate courses reduce the value for money of this investment, since UNTL does not remunerate clinicians for teaching.<sup>66</sup>

B

The Health Transport Project has performed very well (see Annex 7) and is widely regarded as effective in meeting needs not only for ambulance service functionality but also, and in particular, for maintenance of MFVs and HFVs.

A, E

Liga Inan complements other activities by enabling better communication between midwives and mothers. A recent systematic review of mHealth Interventions in improving maternal and neonatal care found that all of the included studies that addressed maternal and neonatal service utilization showed significant increases, but effects on maternal and neonatal health outcomes were not consistent. The authors also found that 'inequities arise ... depending on phone ownership, literacy, rural or urban residency and socio-economic status' and highlighted 'the importance of being aware of the possible selection mechanisms that ... can affect those at the bottom of the pyramid'. They call for action 'to ensure such interventions and activities are evaluated and results disseminated [ to ] ... provide solid evidence on which governments and institutions can base decisions'.<sup>67</sup>

M, O

Although both HAI and INS conducted evaluations of Liga Inan, the quality of these studies has not yet been critically appraised through peer review for publication or as part of a systematic review.<sup>68</sup> Moreover, possible limitations of Liga Inan in generating demand have not been recognised or adequately explored and cost-effectiveness has not been assessed against possible alternatives (e.g. transport vouchers)<sup>69</sup>.

M

<sup>63</sup> HAI will not run LL in Ainaro, since the Korean International Cooperation Agency (KOICA) supports similar training there.

<sup>64</sup> Royal Australasian College of Surgeons, 2017a

<sup>65</sup> Royal Australasian College of Surgeons, 2017b

<sup>66</sup> RACS, 2017a

<sup>67</sup> Sondaal et al, 2016

<sup>68</sup> I.e., unpublished studies of Liga Inan are not cited in relevant systematic reviews by Sondaal et al (2016) or Feroz et al (2017)

<sup>69</sup> Elmusharaf et al, 2017

Apart from Liga Inan, the current program has little focus on the demand side, though there are important needs and opportunities related to behaviour change, seeking care and engagement in governance. M

The M&E Adviser has not been able to do sufficient capacity building across MoH managers to support a strong and lasting culture of M&E, evidence based planning/management and learning - though this is something that requires ownership and leadership as well as appropriate TA. A, B, O

The current part-time PFM TA may not have time to conduct an analysis to work out the cost of providing RMNCH services to all (e.g. using the One Health Tool or Marginal Budgeting for Bottlenecks). MOH would like TA with health economics and financing expertise. A, B, M, O

Based on the above, program interventions are on the whole necessary but probably not sufficient for major impact on RMNCH. Though the program is performing reasonably well against its own targets, impact is limited by poor health facility readiness, which in turn stems from slow progress in addressing fundamental institutional issues and management weaknesses within the sector.

## 7. Coherence of DFAT's bilateral investments in the health sector

### Sources

Although the bilateral program has clear thematic priorities in RMNCH, there are opportunities to improve the complementarity of its approaches and investments. While duplication is not a problem and program partners collaborate effectively in some areas (e.g. MSTL and RACS in training FMP doctors on FP, and HAI and Catalpa for Liga Inan), each implementing partner seems to have its own relationship with MOH. B, M

Some stakeholders see the PHD management layer as another bureaucratic layer that increases complexity without adding value. This suggests that DFAT/PHD have not yet fully captured the potential comparative advantage of this arrangement – i.e. an extension of capacity which makes possible a division of labour, e.g. an arrangement in which PHD deals with routine administration and day-to-day management, while DFAT focuses on high-level policy dialogue and strategic matters. B, C

Other areas of potential comparative advantage for DFAT lie in its investments across many human development sectors through PHD, which are now being brought together under a new Monitoring, Evaluation and Learning Framework (MELF), and its ability to complement these by means of interventions funded from other Australian sources.<sup>70</sup>

## 8. Likely sustainability of achievements of the DFAT bilateral investments

### Sources

In development aid, there are generally trade-offs between quick (and readily attributable) results in specific program areas and sustainability of achievements. The DFAT/PHD health program touches on most of the HS elements, but mainly in ways that focus on a limited program-specific set of outputs, leaving underlying systemic issues unchanged and making sustainability uncertain.

---

<sup>70</sup> A current example of good practice for integrated working across sectors is ANCP funding to Wateraid and MSTL to keep girls in school and enhance reproductive health education in schools.

Support for FP relies on a 'protected' arrangement for commodity supplies by providing ring-fenced funding through SAMES. This ensures a steady pipeline but doesn't build national capacity in planning and budgeting for procurement.	A, B, C
It should be possible to sustain HAI LL achievements through periodic refresher training. Better pre-service training (PST) will be needed to ensure competence of future midwifery graduates.	A, B, L, M, O
ATLASS II sustainability prospects are constrained by slow progress toward HNGV becoming an effective teaching hospital. Although the technical objectives of a handover might only take five years to complete, at present there does not seem to be sufficient political will for the institutional changes needed to sustain ATLASS II training. <sup>71</sup>	A, B, F, M, O
HF readiness is the biggest issue: until there is accountability for it, progress in improving service delivery will likely remain slow. In the unready HFs there is a risk that trained staff lose skills and/or motivation (especially for doctors, who might move into the private sector or go abroad).	D, E, F, G, H, M, O
GOTL wants to establish an autonomous ambulance service and the current IP is keen to support the handover. This augurs well for sustainability. However, creation of a new autonomous agency will require a formal high-level decision; sustainability also depends on mobilizing funding for at least 15-20 new ambulances very soon. In addition, there is an urgent need to replace about half of the 80 MFVs used by CHCs for a variety of tasks.	A, B, M, O
MOH has committed to internalising Liga Inan, and expects to be able to run it following handover. In addition to improved coverage of phone networks, expanding coverage of mothers will require increased uptake of ANC1.	A, B, M, L
Sustainability of what is achieved through TA depends on: (i) turnover of people trained and (ii) the extent to which relevant institutions embed new procedures and change their cultures. 'Deep change' will require strong MOH leadership, not just good TA.	M, N, O

## 9. Lessons that could improve existing or new DFAT investments in health

	Source
As in any system, TL's health system is only as strong as its weakest link. Continuous monitoring of linkages and sequencing in the development of the entire health system could help to ensure that different elements improve in ways that support each other to achieve objectives (e.g. HF readiness needs to improve to enable staff to practice new skills).	A, B, M, N, O
Although performance of the DFAT/PHD projects against their targets has generally been good or at least satisfactory, there is limited coherence within the current portfolio of RMNCH investments, i.e. the component projects are not unified in a way that makes the	

<sup>71</sup> 'While a handover remains the ultimate goal, the reality is that these institutions will not be ready to take responsibility for the implementation of the PG training by June 2018, end-of-contract for ATLASS II... Currently and despite the program's efforts, UNTL is not engaged nor has the financial or organisational capacity to coordinate, deliver or participate in any PG medical teaching activities, despite charging USD 2,000 tuition fees per trainee. Should ATLASS II stop delivering the training at end-of-contract, PG medical education in Timor-Leste will cease to be available... ATLASS II believes a phased approach is the best and only option. ATLASS II would need to work closely with the MoH, MoEdu, HNGV and UNTL to develop a realistic and thorough handover strategy allowing each institution to plan and develop the necessary capacity to assume their various responsibilities in a staged approach. This plan would need to be actioned in stages and monitored closely by the program to ensure each stakeholder remains on-target to meet their agreed responsibilities on time. These stakeholders would also need to improve their lines of communication and formalise their relationship and individual roles. ATLASS II believes a handover, conducted in this way, would likely be achievable within a 5-year timeframe, although the caveat is that each party must be genuinely engaged and committed...' (RACS, 2017)

whole greater than the sum of the parts. At the same time, there have been important changes in health sector context during recent years. In view of this, and the fact that most of the current program contracts end in 2018, there is now both a need and an opportunity to redesign the program to ensure relevance to the evolving context and improve the mix of investments and modalities.

Although MOH was engaged in the development of the current DFAT/PHD program, an increasingly assertive sense of ownership by MOH calls for more emphasis on alignment and harmonization as per the forthcoming MOH manual, with all new proposals submitted to MOH at an early stage for comments and advice, and national priorities determining geographical focus of activities (the latter being something for which several interlocutors praised JSI).

A, M

The program could focus more on building capacity to foster sustainability. Rights and equity (poor/rich and rural/urban as well as gender and disability) could also have more prominence. A more strategic approach to management would increase program coherence.

The program needs a clear theory of change, together with a comprehensive and rigorous overall M&E framework within which component projects can be logically 'nested'. A Collective Impact approach to management of the program could involve planning, monitoring and reporting for the program overall rather than just for individual projects.

A, M

With limited funds - and especially as other donors depart - it's important to focus on catalytic interventions with potential for transformation; these often involve the Information and Governance elements of the health system.<sup>72</sup> Close monitoring of political economy dynamics is vital to identifying emerging opportunities (and threats) as they arise; ongoing policy and strategy dialogue is essential to this, and flexibility helps in capitalising on opportunities and managing emerging risks.

## RECOMMENDATIONS

At the workshop on 13<sup>th</sup> October, the Review team presented preliminary recommendations based on a summary analysis against the KEQs (see Annex 4); these were then discussed by participants. Having subsequently refined the analysis and considered various suggestions made at the workshop, the Review team concludes that there are important opportunities for DFAT/PHD to maximise the relevance, effectiveness, efficiency and sustainability of investments by making some adjustments during the coming year and redesigning the program as current contracts run out, with a view to expediting progress on unfinished RMNCH agendas from 2018 to 2021.

Recommendations of the Review are based on:

- (i) Australia's comparative advantage as the largest donor, with an established tradition of bilateral partnership and ample capacity for both strategic management and project administration;
- (ii) performance of the program during the period covered by the review;
- (iii) remaining gaps and challenges, especially insufficient support for EmONC and management within the sector and suboptimal balance and coherence within the program; and
- (iv) opportunities and risks arising from ongoing and expected contextual changes.

*Note that because a number of RMNCH-relevant strategies are being revised at present, (iii) and (iv) are the main drivers for the recommendations of the Review.*

---

<sup>72</sup> De Savigny and Adam, 2009



Recommendations are set out below under the following sub-headings:

1. general recommendations concerning ways of working, strategic management and overall balance of investments
2. recommendations, organised by elements of the health system, involving high-level actions to prepare the ground for detailed redesign of the program
3. recommendations for individual investments, some of which will transition into GOTL while others will evolve or be created to comprise the ongoing re-designed program
4. suggestions for a multi-sectoral 'whole-of-PHD' approach
5. suggestions for what the program will not include
6. recommendations for theory of change, M&E and reporting

## 1. General recommendations

**Improve ways of working:** In response to improvements in MOH stewardship - including its efforts to update and refine key strategies and provide leadership in coordinating external partners (see Findings, Sections 1, 2 and 9) - DFAT/PHD should build on its comparative advantage as a large and long-established health sector donor to improve the effectiveness of its aid and further strengthen the bilateral relationship by:

- emphasizing equity (poor/rich and rural/urban as well as gender and disability) and rights in view of continued inequities in access and health outcomes and accordance with the values expressed in NHSSP;
- giving greater emphasis to alignment with national priorities, i.e. by aligning with new/revised strategies/plans as they emerge and by responding to MOH direction on where to implement projects;<sup>73</sup>
- leading by example in improving harmonization (as per forthcoming MOH manual);
- working more closely with other donors to speak with one voice to GOTL; and
- increasing emphasis on building capacity of MOH and relevant autonomous health agencies.

**Manage the program more strategically:** In response to concerns about coherence (see Findings, Section 7), DFAT and PHD should actualise the potential comparative advantage of their partnership by:

- determining their respective roles and functions with regard to policy, strategy and management, based on principles of efficiency and subsidiarity, and communicating these to stakeholders;
- working closely with GOTL to maintain an overview of linkages and sequencing in the evolution of the health system and encourage MOH to ensure that different elements of the system improve in ways that support each other to achieve RMNCH objectives;
- being alert to emerging opportunities for catalytic interventions with potential for systemic transformation that could improve RMNCH, while retaining flexibility to respond to them without delay; and
- adopting a Collective Impact approach,<sup>74</sup> including quarterly meetings of program partners, to ensure complementary interventions add up to more than the sum of the (individual project) parts.

**Improve the balance of investments:** In response to the evolving capacity of Timor-Leste's health sector and to the imbalance created by expansion of the health workforce and focus on clinical competences while persistent systemic issues undermine quality of care (see Findings, Sections 1, 4, 5, 6 and 9), DFAT/PHD should:

- step back as MOH steps up, i.e., by reducing direct delivery in parallel to GOTL and putting more emphasis on supporting GOTL to deliver and improve at every level;
- give more emphasis to overall readiness (based on MOH readiness criteria and standards) for RMNCH service delivery; and
- do more to promote and support systemic/institutional reforms and to help the health system adapt to decentralization.

## 2. Recommendations, by health system objective, in preparation for redesign

Recommendations in this section focus on the 'bigger picture' of the health system and on actions needed at policy and strategy level to pave the way for an effective redesign of the program.

**Note that actions to be taken more or less immediately are indicated by arrow-shaped bullets ( ➤ ).**

---

<sup>73</sup> This would have priority over PHD's interest in having 'a geographic and multi-sectoral focus' (see Annex 1)

<sup>74</sup> Kania and Kramer, 2011

Stewardship: In response to the improving trend in MOH ownership/leadership, its current focus on refining strategic priorities, DFAT's potential comparative advantage in policy/strategic engagement and the program's recent history of providing effective TA (see Findings, Section 1 and 5 and the general recommendations above), DFAT/PHD should:

- provide short-term TA to support the MOH 'configuration' review and thereafter support the health sector to use findings to improve efficiency and equity;
- in the coming three to six months, explore the feasibility of MOH taking greater responsibility for selecting and managing TAs while having increased flexibility to identify its TA needs; this dialogue should emphasise that although PHD would manage the funds and administer contracts, such an arrangement will require a high level of commitment and a certain amount of additional work by MOH (i.e. in joint working with PHD to develop ground rules for use of the funds, drafting TOR for TA assignments, participating in selection of candidates, and monitoring performance);
- in the coming two to three months, engage with MOH and other partners on EmONC IPA to gauge: (i) evidence of MOH ownership and leadership; and (ii) what support is likely to come from GOTL and other donors; and
- subject to evidence of MOH ownership and leadership and willingness of other partners to contribute, engage during the coming six months in dialogue to prioritise and sequence EmONC IPA activities and refine costings, equipment needs, standard treatment guidelines (STG), etc (with a view to making a case for a DFAT/PHD contribution to a comprehensive MOH-led EmONC initiative).

Management: In response to identified weaknesses in management at several levels that undermine quality of RMNCH care (see Findings, Section 1), DFAT/PHD should:

- subject to the provisions of the forthcoming MOH strategic plan for HR management, pursue dialogue with MOH and INS on development of a package of support for middle-level managers and senior MOH management (see also specific recommendations below).

Health workforce:

- in response to institutional challenges to improving PST (see Findings, Section 1) and in view of Australia's expertise in this area, DFAT should pursue policy dialogue, drawing on experience in other countries, to promote/support institutional reform to improve PST and postgraduate medical education, including establishing HNGV as an effective teaching hospital with a strong cadre of Timorese clinical trainers and incentives for clinicians who teach; and
- in anticipation of the satisfactory completion of the HAI Learning Labs project (see Findings, Section 4), which will free resources for more ambitious approaches to care at delivery with potentially greater impact (i.e. support for EmONC), DFAT should explore during 2018 the possibility of MOH committing, from 2019, to SCD/ENBC refresher training for midwives (to support the skills emphasized in HAI LL) when the project ceases.

Infrastructure: in view of the weaknesses identified, and as part of increased emphasis on readiness, which is vital to improving and sustaining quality of RMNCH care (see Findings, Section 1, 2, 4, 6 and 8 and general recommendations above), DFAT/PHD should:

- establish/strengthen liaison with MOH, SAMES and other partners to maintain an overview of trends in the functionality of the procurement/supplies system
- consider needs for key items of equipment for BEmONC (as part of comprehensive MOH-led EmONC initiative) and the case for DFAT/PHD to provide support to fill any gaps;

And to improve prospects for sustaining the achievements of the Health Transport Program as responsibility transitions to GOTL (see Findings, Section 4 and 8), during 2018 DFAT/PHD should:

- provide short-term TA to support analysis and costing of options for GOTL autonomous ambulance service and vehicle inspection and maintenance;
- support MOH to use the findings to make the case within GOTL for a new autonomous ambulance service and more money for new vehicles; and

- reach agreement with GOTL on approach and timeline for handover of responsibilities.

**Service delivery:** in order to maximize and sustain impact on utilization of RMNCH services as the program helps to improve their range, quality and reach (see Findings, Sections 4, 6 and 8), DFAT/PHD should:

- ensure that Liga Inan is as effective as possible before its transition into MOH is completed (see next section for details); and
- intensify integrated working with PHD Education and Gender programs to ensure inclusion of adolescent girls and boys in efforts to alter gender norms, foster behaviour change and promote use of services.

### 3. Recommendations for the evolution of individual program components:

Over the coming year, as the outcomes of preparatory activities described in the previous section unfold, DFAT/PHD should take specific steps to redesign the program, in close consultation with MOH and relevant autonomous agencies in the health sector. This will involve (a) ensuring successful transition of some activities into GOTL; (b) modifying some ongoing investments; and (c) creating some new ones; the end result will be a re-designed program with five components.

#### (a) Support transition of two initiatives into GOTL

**Liga Inan:** To ensure that Liga Inan is as robust as possible before its transition into MOH is completed (see Findings, section 4, 6 and 8), DFAT/PHD should focus on the following during 2018:

- encourage Health Alliance International (HAI) and INS to submit 2015 evaluation studies for publication in peer-reviewed journals and to share them with the authors of relevant systematic reviews (since if quality is high, the studies should be shared as peer-reviewed publications, and if it is low the findings should be interpreted more cautiously and expectations adjusted accordingly);
- commission analysis of DHS 2016 results (as per Ly, 2012) to understand trend in inequities related to maternal care;
- explore alternative ways to reach those who are not currently reached by Liga Inan (e.g. through MSGs, etc);
- find ways to enroll expectant mothers earlier in pregnancy (i.e., during the first trimester) to increase their exposure to messages that promote ANC attendance and other helpful behaviours;
- continue to target messages to husbands and in-laws (e.g. on birth planning, not smoking near babies and children, using post-partum FP to space births, etc);
- explore whether Bobonaro could use *Saude na Familia* (SnF) to track service uptake by those who are and are not registered in Liga Inan; and
- consider ways to integrate the Liga Inan dashboard so that it complements TLHIS.

**Health Transport:** Once the approaches and timeline for transition of the Health Transport project are agreed, DFAT/PHD should facilitate sustainability (see Findings, section 8) by:

- providing interim support for transition of the Health Transport initiative, including operations research to assess how well the new arrangements work;
- completing the handover in 2019 or 2020.<sup>75</sup>

#### (b) Modify two investments that will need to continue for the duration of the bilateral program

<sup>75</sup> There are differing perspectives among stakeholders regarding the timeline for accomplishing this; one expert view is that it can be done by the end of March 2019, but other observers think that target date may be overly ambitious.

**Family Planning:** Since unmet need for FP remains substantial despite some recent improvements (see Findings, sections 1, 3 and 4), DFAT/PHD could consider re-tendering for this program component with a view to accelerating uptake of FP and further improving value for money, but such an approach seems unlikely to be worthwhile, given the fact that MSTL is an established and trusted partner and has already cut operational costs; moreover, the costs of transitioning to a new and untested implementing partner would inevitably be considerable and could outweigh any gains. Instead, DFAT/PHD should negotiate a post-2018 agreement in which MSTL:

- are pro-actively supported by DFAT/PHD in managing any tensions concerning FP policy;
- develop skills of MoH staff and then coach and mentor them to provide high quality services that (a) enable clients to make informed choices from a wide range of FP methods and (b) provide the methods that clients choose;
- where HF staff are competent to provide FP, raise community awareness of the HF's ability to provide FP while making advice/coaching available to the HF on request;
- continue strengthening the existing efforts on demand generations targeting the key barriers for effective sexual and reproductive health and family planning services. These can be done through the potential expansion of capacity building as well as the existing SRH and FP education sessions (e.g. education/life skills, gender) with communities, youth groups and other opportunities with different entities. explore innovative ways to counter judgmental attitudes toward users of FP, boost demand, and reach those with unmet need, especially among those who are hardest to reach (this could involve working with middle-level managers and across sectors (e.g. education/life skills, gender));
- commit to increasing numbers accessing FP and reducing cost and
- as MOH/SAMES capacity to forecast, order, procure and supply commodities improves (under GAVI transition and mSupply rollout), liaise with UNFPA to reduce reliance on protected pipeline arrangement for FP commodities. However this will need to be considered carefully in light of the revised MoH Family Planning policy and future GoTL commitments post 2018 election.

Funding for the above is expected to be no higher than the present level. The Embassy's current proposal to DFAT's Gender Equality Fund, if successful, will help to increase the total level of resources for reproductive health in TL.

**Postgraduate medical training:** From primary healthcare perspective, the review observed that professional abilities of FMP doctors are appreciated and required. However, only a few are available to work in CHCs while enrolment for specialist training now exceeds the project target (see Findings, section 4 and 6), DFAT/PHD should:

- pending the finalization of the MoH workforce plan and HR management strategy, develop a new agreement with RACS for the period 2018-2021,:

the FMP curriculum is revised in light of both (a) the RACS 2017 evaluation and (b) the role of doctors in BEmONC (based on the EmONC Improvement Plan of Action);

FMP graduates working in CHCs are followed up in order to understand their working conditions and liaise with management to improve HF readiness where necessary (note that this would not necessarily need to be done by RACS itself);

the project continues to promote best practice related to teaching, clinical governance and audit;

the project adopts a target of producing at least one and preferably two FMP doctors per CHC by 2021; and

the project finishes training those already enrolled for other specialties but does not enroll any more trainees for these areas during the project period, since current enrolment is already running ahead of targets.

DFAT/PHD will need to work with RACS to explore budget implications of the above, with a view to keeping the budget at or below its current level. At the same time, dialogue with the MoH on the planning and priorities for the government's Human Capital Development Fund

### (c) Begin three new investments

**Obstetric and neonatal care:** Drawing on its experience and comparative advantage in this sub-sector, DFAT/PHD should increase the ambition of its program in relation to care at delivery in response to (i) MOH's recognition of the importance of EmONC and readiness to address it (see Findings, section 1 and 2) and (ii) the evolution of arrangements for SCD/ENBC training (see Findings, section 6 and Recommendations by health system objective, above). To this end DFAT/PHD should:

- subject to the provisions of the new MOH HR strategy, work with INS to outline a curriculum for 4-6 weeks clinical training for new midwifery graduates prior to recruitment; this would cover FP, ANC, SCD/ENBC and PNC; candidates demonstrating competency would receive INS certificates;
- subject to evidence of MOH ownership and leadership of EmONC IPA and to indications that MOH and other partners will contribute, agree on BEmONC equipment to be supplied and work with INS to outline a curriculum for BEmONC competences needed among currently serving midwives in HFs targeted by the EmONC IPA; and
- tender for a new project to work with MOH, INS and SAMES to deliver the above, to begin in 2019.

**Management:** to address gaps in management skills, which already adversely affect the range, quality and reach of RMNCH services and may have more severe consequences as decentralization proceeds (see Findings, Section 1, 4 and 6), DFAT/PHD should:

- subject to the provisions of the new MOH strategic plan for HR management, work with MOH and INS during 2018 to design an Initiative to Strengthen Health Management At Every Level (ISHMAEL) to begin in 2019;
- among the first steps, include: (i) operations research with MOH to understand the challenges faced by middle-level managers in the context of decentralization; and (ii) TA to INS to review/adapt its existing Leadership and Management curriculum to the needs of middle-level managers, including skills for promoting a alignment of partners at municipal level, PFM, administration, supportive supervision, and management of infrastructure/equipment/supplies elements for RMNCH services (including BEmONC);
- aim for an approach that is workplace-focused and practical (perhaps drawing on Australian TVET experience through Australia-Pacific Technical College (APTC) middle-level manager courses and emphasizing 'logframe thinking' for planning and management, decision-making, problem-solving, negotiating, etc); at a later stage,

related and complementary curricula can be developed for MOH senior managers, hospital managers and lower-level managers;

- Include follow-up after training (FUAT) as part of the design, possibly involving coaching/mentoring support and update/refresher training after 1-2 years (linked to stages of decentralisation);
- develop mechanisms to link this initiative to: (i) Community Based Monitoring activities; (ii) MOH 'delegations' to municipalities; (iii) DFAT/PHD TA to MOH on decentralization; and (iv) more broadly (through G4D) to central decision-making on decentralization; in other words, the initiative should feed into real-time system-wide monitoring of how decentralisation is working and what factors promote or inhibit functionality; and
- explore options for partnerships to implement this project, assuming (as a very rough estimate) a budget of AUD 1.5-2 million for the period 2019-2021.

**Technical Assistance:** in response to improving MOH ownership and requests for a wider range of TA in the face of new challenges, as well as DFAT/PHD track record in supplying TA that has been effective and appreciated (see Findings, Section 1, 2 and 5), DFAT/PHD should:

- in the coming three to six months, work with MOH to develop ground rules (e.g., eligibility criteria, management responsibilities etc) for a flexible TA budget line - with a fixed ceiling - within the DFAT/PHD program for a range of needs (e.g., health economics and financing, decentralization, health information, PFM, institutional reform for training of health workers, and citizen engagement in governance); and
- subject to the outcome of this dialogue, create a Flexible TA budget line within the DFAT/PHD program of up to AUD 1 million per year from early- to mid-2018.

#### 4. Suggestions for a 'Whole-of-PHD' approach

Improving RMNCH outcomes cuts across a number of sectors, and DFAT/PHD engagement in many of them confers considerable potential comparative advantage. The impact of the redesigned health program can be enhanced by leveraging investments across PHD to improve overall effectiveness and efficiency. Possibilities include:

*Gender:* improving awareness of women's rights, promotion of empowerment and transformative gender relations across whole of community/suco leadership;

*Disability:* promoting inclusion of people with disabilities in governance as well as facilitating access to and utilisation of health services

*Education:* improving understanding sexual and reproductive health, including the benefits of delaying first pregnancy and spacing births;

*Nutrition:* improving nutrition for adolescents, women and infants by integrating messaging from Hamutuk program into Liga Inan and vice versa and improving the skills of frontline health workers to promote nutrition and treat malnutrition

*WASH:* building on lessons from Water User Groups to inform CBM in the health sector



*Social protection:* if opportunities arise, investigating (i) health-related conditionalities for cash transfers and/or (ii) use of transport vouchers for rural/remote pregnant women to deliver in HFs.

In municipalities where PHD has a presence across several sectors, it may be useful to put particular effort into assessing synergies, e.g., by giving emphasis to indicators that can capture synergies and/or by proposing additional in-depth studies.

## 5. Suggestions for what the program will not include

The program will not include any new buildings. With the exception of FP commodities (and only until such time as MOH/SAMES systems can reliably provide these), it will not supply drugs or consumables. With the exception of the MSTL clinic in Dili, which is needed as a training facility, the program will continue to deliver services alongside the Ministry of Health.

The program should exclude anything that discriminates on the basis of ethnic origin, faith, disability, gender or sexuality. It must also exclude anything that harms children or damages the environment.

## 6. Recommendations for theory of change, M&E and reporting

The redesigned health program will need a new theory of change and M&E framework. These should be devised in alignment with NHSSP objectives so that MOH can readily see how they add value.

A simplified theory of change, intended as a starting point for further discussion and eventual refinement, is shown on the next page. Note that as this was drafted to align with NHSSP, demand-side elements are not specified separately but implied under Stewardship, Management and Service Delivery.

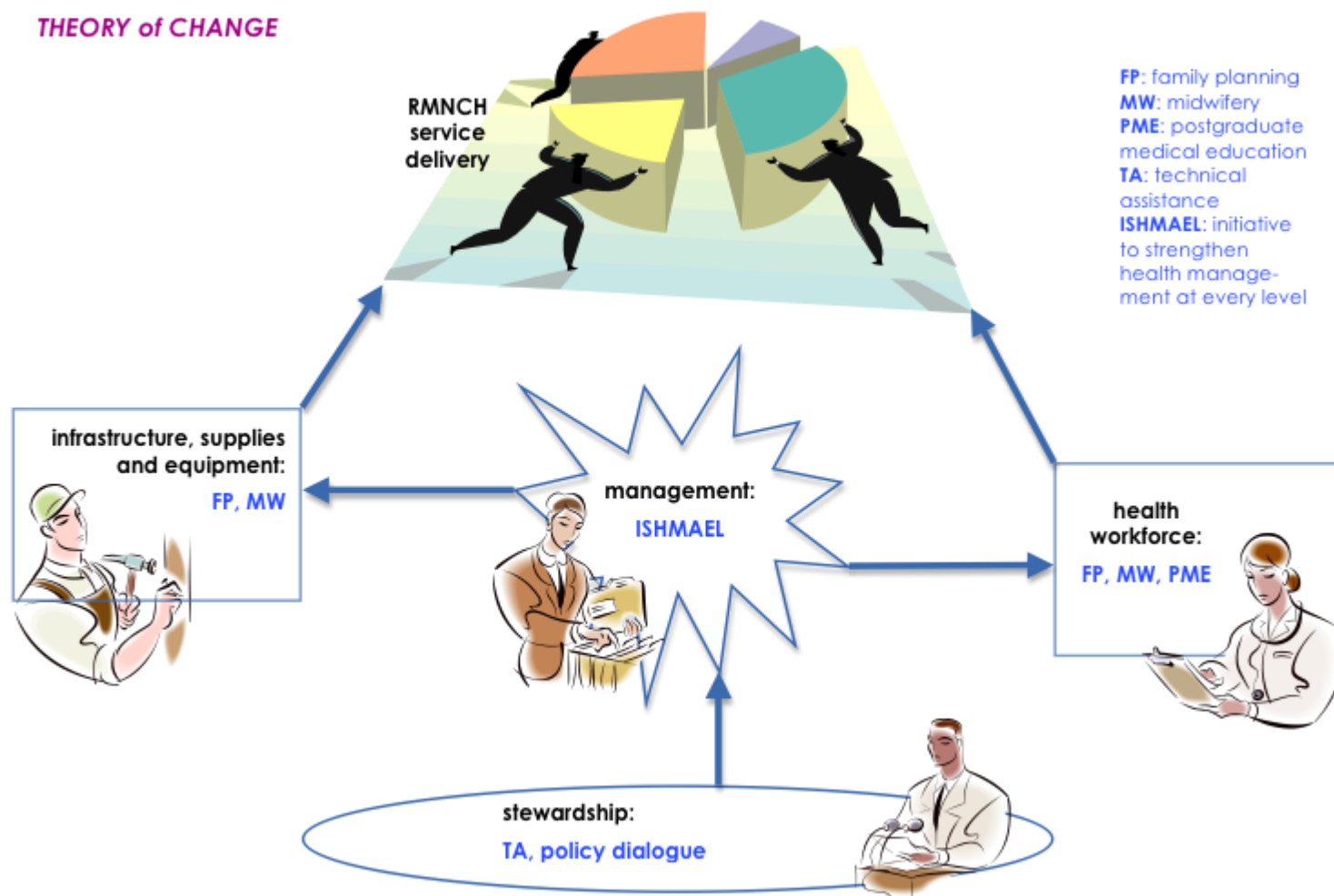
Whole-of-health-program outcomes could be:

- Strengthened stewardship and governance of health at all levels  
(through policy dialogue and TA - including TA for CBM - and by facilitating middle-level managers to channel feedback that could instigate action at higher levels)
- Better management including administration and supervision  
(through training, FUAT/coaching and operations research)
- Health workforce with increased competences for RMNCH  
(by strengthening skills in FP and delivery care, including BEmONC, and through postgraduate medical education)
- Improved health infrastructure, equipment and supplies  
(by enabling managers to supervise and take measures to improve HF readiness, by providing some BEmONC equipment (if appropriate), and by ensuring supplies of FP commodities while reducing reliance on protected pipeline as and when possible)
- Enhanced RMNCH service delivery  
(by increasing the range, reach and quality of RMNCH services - and equitable utilization thereof - through all of the above).

M&E frameworks for individual projects will need to be developed in due course and nested into the above. To facilitate continued understanding and engagement of stakeholders, including MOH, these frameworks should be designed in ways that allow course corrections to be made from year to year without requiring major overhauls. Project reporting formats should be standardized in line with the partnership manual that MOH Directorate of Policy and Cooperation is developing. Annual overall

program reports, as well as more frequent project reports, should be shared in accordance with MOH guidance.

## THEORY of CHANGE



## RISKS

The program is expected to face – and to need to manage – the following risks:

Australian political risks could include acceleration of the recent downward trend in the overall aid budget, which might affect funding available for health in TL, or delay in progressing the Maritime Agreement, which might taint the bilateral relationship. Although the likelihood of these risks is low to moderate, their impacts on the program could be moderate to major. Careful monitoring of Australian national political dynamics by DFAT will be key to anticipating and managing such risks.

There is a low to moderate risk of overall political instability in TL, which could have moderate to major adverse impacts on program re-design and implementation.

Changes to the political economy are likely in a dynamic and decentralizing health sector environment. These could have positive or negative impacts of high or low magnitude. DFAT/PHD therefore need to continuously monitor such changes and adjust approaches in response to emerging opportunities and/or threats.

Timor-Leste's shrinking range of donors leaves the health sector with fewer external resources and makes Australia's contribution and leadership role larger in relative terms. DFAT/PHD should lobby for continued funding from the Global Fund, to support malaria elimination, and should increasingly seek to set an example to other donors by aligning and harmonizing its aid and coordinating with other partners to speak with one voice to GOTL.

If MOH and other stakeholders experience the PHD management layer as something that increases complexity without adding value, it will hamper relationships and implementation. DFAT/PHD can manage this by using the principle of subsidiarity to clarify the hierarchy for decision-making and channels for communication, and by communicating these pro-actively.

Vehicle inspection and maintenance are more challenging than ambulance service management for MOH/GOTL to internalize, i.e., (i) HTP staff would be paid a lot less if employed by MOH so there is a risk they will leave; this could be mitigated if the current service were to be contracted in, at least for the first few years; and (ii) inspection and maintenance might not be handled well under decentralization; the Aileu model (now being tested) should be studied carefully to learn lessons.

A delay in the decision to create an autonomous ambulance service would in turn delay handover of responsibility to GOTL. DFAT/PHD can manage this risk by helping MOH make a strong case for establishing an autonomous agency.

Without a minimum of five to seven new ambulances per year, the emergency transport fleet will fail within a few years, leading to loss of morale and reputational risk for DFAT/PHD, as well as loss of life when emergencies arise. MFVs, for which municipalities are responsible, are already failing and about half of them now need to be replaced; SISCa, outreach and a number of other functions are already in jeopardy. Robust policy dialogue and TA during the handover period will be vital to managing this risk.

If expectations of Liga Inan are unrealistically high MOH could be blamed for disappointing performance following handover, leading to loss of morale. This risk should be managed by conducting further work during 2018 to confirm/adjust expectations (as outlined above).

Cultural and faith-related sensitivities concerning FP will often or at least sometimes be at odds with a rights-based approach. DFAT/PHD and program partners need to handle this in a consistent and pro-active way.

Relative to current arrangements for TA, a Flexible TA Fund will require more work from both MOH and PHD. Clear communication, careful preparation and pro-active management will be vital to managing the risk that funds are not fully or appropriately used.

The proposed shift of emphasis in support for midwifery creates a risk that those trained through LL subsequently lose their skills. This risk can be reduced if MOH commits to providing periodic refresher training on SCD/ENBC, and DFAT/PHD should engage in policy dialogue to promote this.

The proposed pre-recruitment training for new midwifery graduates should help to ensure quality of services, but amounts to yet another 'work-around' that 'enables' the ongoing institutional dysfunction regarding PST. It is therefore vital that DFAT/PHD engage pro-actively and opportunistically in policy dialogue to promote relevant institutional reforms.

EmONC is a complex program and will fail without strong MOH ownership, leadership and commitment to improving HF readiness. As emphasized above, DFAT/PHD should seek evidence of these, and of sufficient complementary support from other partners, before making commitments to the EmONC IPA agenda.

While other partners are supporting MOH and SAMES to improve forecasting, procurement and supply chains for equipment and commodities, there is still a risk that progress in these areas will continue to constrain HF readiness. DFAT/PHD therefore need to monitor the evolution of procurement and supply, use policy dialogue to advocate measures to overcome bottlenecks, and where necessary adjust implementation and expectations of its own projects.

Evidence for management interventions is not abundant and much of what exists is context-specific. To avoid raising inappropriate expectations, which would create risks, this project should be seen as 'experimental', with emphasis on operations research and learning by doing. To improve chances of success, it will also be important to establish and make use of feedback mechanisms within the program (at the interface of management and stewardship) to raise awareness on persistent challenges (i.e., those that remain beyond the control of middle-level managers, despite training) at levels where decisions can be made to overcome them (which may range from community to national level).

On the demand side, assuming CBM is eventually rolled out, there could be a risk of community fatigue if responses to the issues raised are inadequate. Ensuring links between Management project activities and CBM could help to mitigate this risk (e.g., early experience with CBM has shown that some communities have been able, without additional funds, to work with HFs to reach readiness standards in the space of three to six months).

## CONCLUSIONS

The foregoing analysis demonstrates that current DFAT/PHD bilateral health investments are aligned to Timor-Leste's national health sector strategy and respond to needs identified therein. The five projects are performing reasonably well against their targets for building RMNCH skills/competences, improving the functionality of health transport, fostering informed choice from an expanded range of FP methods, and promoting uptake of these and other RMNCH services. TA for health information/M&E has been well received by MOH and the PFM adviser is providing vital analyses of challenges such as the implications of decentralization for managers at municipality level.

It is likely that these interventions, which taken together represent an investment of AUD 7.5 million per annum, have contributed, together with other factors, to increasing the range, quality and reach of RMNCH services in Timor-Leste. These improvements, as well as more direct efforts to promote uptake, have almost certainly helped to boost utilization of RMNCH services, which likely contributed in turn to a recent reduction in infant mortality.

Nonetheless, RMNCH remains an unfinished agenda: unmet need for FP is considerable, a significant minority of pregnant women receive no ANC, only half of all deliveries take place in HFs, and seven out of 13 municipalities have no EmONC services, even though the latter are vital to improving maternal neonatal outcomes.

The current DFAT/PHD program gives disproportionate emphasis to improving RMNCH clinical skills and competences, despite the risk that these may not be fully utilized - and can even be lost - owing to lack of health facility readiness. Sustainable RMNCH improvement will require attention to the wider health system, since all elements of the health system (stewardship, management, infrastructure, health workforce and service delivery) affect RMNCH directly or indirectly. Recognising these needs, MOH is now developing or refining several key strategies and plans, including a strategic plan for HR management and an Improvement Plan of Action for EmONC.

In light of Australia's comparative advantage and the need to respond to important ongoing and anticipated contextual changes in Timor-Leste's health sector, DFAT/PHD can maximise the relevance, effectiveness, efficiency and sustainability of its health program by making some adjustments during the coming years. The report makes detailed recommendations organized under several sub-headings, i.e., general recommendations concerning ways of working and the balance of investments; recommendations for high-level actions to prepare the ground for detailed redesign of the program, and recommendations for evolution of individual investments, resulting in a program with five components (*Family planning, Postgraduate medical training, Obstetric/neonatal care, Management, and Technical assistance*) from 2019.

## BIBLIOGRAPHY

Australian Government Department of Foreign Affairs and Trade (DFAT), 2015. Australia Timor-Leste Partnership for Human Development Investment Design Document.

Catalpa International, 2017. Liga Inan Quarterly Update, 2 June 2017.

DFAT, 2015. Strategic Framework for Maternal and Infant Health Services, 2015-2018.

DHS, 2010: National Statistics Directorate (NSD) [Timor-Leste], Ministry of Finance [Timor-Leste], and ICF Macro. 2010. *Timor-Leste Demographic and Health Survey 2009-10*. Dili, Timor-Leste: NSD [Timor-Leste] and ICF Macro.

DHS, 2016: General Directorate of Statistics (GDS) and ICF. 2017. *Timor-Leste Demographic and Health Survey 2016: Key Indicators*. Dili, Timor-Leste: GDS, and Rockville, Maryland, USA: ICF.

De Savigny, D and T Adam, 2009. *Systems Thinking for Health Systems Strengthening*. Alliance for Health Policy and Systems Research, World Health Organization, Geneva.

DiFranza, JR, et al 2006. Prenatal and Postnatal Environmental Tobacco Smoke Exposure and Children's Health. *Pediatrics* 2004;113;1007-1015 DOI: 10.1542/peds.113.4.S1.1007

Egger, D et al, 2005. Strengthening management in low-income countries: Making Health Systems Work: Working Paper No. 1. Geneva, WHO.

Egger, D and E Ollier (2007) Managing the health Millennium Development Goals - the challenge of management strengthening. Lessons from three countries. Making Health Systems Work: Working Paper No. 8. Geneva, WHO.

Elmusharaf, K et al, 2017. Strategies to increase demand for maternal health services in resource-limited settings: challenges to be addressed. *BMC Public Health* (2015) 15:870 DOI 10.1186/s12889-015-2222-3.

Fabricant, S, 2013. *Economic Inputs to the Timor Leste Health Design*. Canberra: Health Resource Facility for Australia's aid program.

Feigl, A et al, 2016. A Rapid Assessment of Key Areas of the NHSSP for Timor-Leste: Strengths, Challenges, and Opportunities for Moving Forward. March 2016. Bethesda, MD: Health Finance and Governance Project, Abt Associates Inc.

FP2020 Momentum at the midpoint 2015-2016. [progress.familyplanning2020.org](http://progress.familyplanning2020.org)

Feroz, A et al 2017. Role of mHealth applications for improving antenatal and postnatal care in low and middle income countries: a systematic review. *BMC Health Services Research* (2017) 17:704 DOI 10.1186/s12913-017-2664-7

Health Alliance International, 2017. Support of Integrated Maternal and Newborn Care and Liga Inan Scale-Up in Partnership with the Timor-Leste Ministry of Health: Proposal Narrative Submitted to the Partnership for Human Development 1 July 2017 -31 December 2018.

Health Financing Policy Options for Timor-Leste, 2016. A policy options document developed to support development of Health Financing Policies and Strategies in Timor-Leste 2016. Draft Document, Version 8, October 21<sup>st</sup>, 2016.

Holloway, K, 2012. Timor-Leste: Pharmaceuticals in Health Care Delivery. Mission Report 6-17 February 2012. New Delhi: World Health Organization.

Holmer, H et al, 2015. The global met need for emergency obstetric care: a systematic review. *British Journal of Obstetrics and Gynaecology*;122:183-189. DOI: 10.1111/1471-0528.13230

Hou, X and A Asante, 2016. Turning Challenges into Opportunities: the medium term health expenditure pressure study in Timor Leste. World Bank.

Kania, J and M Kramer, 2011. Collective impact. *Stanford Social Innovation Review* Winter 2011



Kohler, H-P and J Behrman, 2014. Benefits and costs of the population and demography targets for the post-2015 development agenda: Post-2015 Consensus Working paper as of 3 October 2014. Copenhagen Consensus Center.

Ly, C, 2012. Determinants of Child and Maternal Health Outcomes: Timor-Leste (unpublished).

Marie Stopes Timor-Leste, 2016. 'EQUI-T': Expanding Quality, Uptake and Impact – Together. Program Design Proposal submitted to Abt JTA on 6th December 2016.

Martins, N et al, 2015. Evaluation of Liga Inan project.

Ministry of Health Timor-Leste [ no date ]. SAUDE NA FAMILIA: Part of Comprehensive Primary Healthcare Package. Success Stories from the Field.

Ministry of Health Timor-Leste, 2011. National Health Sector Strategic Plan 2011-2030.

Ministry of Health. 2015. National Primary Health Care Programme. Dili, Timor-Leste: Ministry of Health.

Ministry of Health Timor-Leste, 2016. Timor Leste Second National EmONC Assessment, September 2015 – January 2016.

Ministry of Health Timor-Leste, 2017. National Health Sector Strategic Plan 2011 – 2030: five-year implementation – review (PowerPoint).

Partnership for Human Development Australia Timor-Leste, 2016 (a). Implementation Strategy, Sector: Health, Date: 11 November 2016.

Partnership for Human Development Australia Timor-Leste, 2016 (b). Analysis of proposed 2017 Health Sector Budget (ppt).

Partnership for Human Development Australia Timor-Leste, 2017. [ PHD six-monthly report for July-Dec 2016

Partnership for Maternal, Neonatal and Child Health, 2011. A global review of the key interventions related to reproductive, maternal, neonatal and child health (RMNCH). Geneva: PMNCH.

Review of Australia Timor-Leste Partnership for Human Development Health Program. Review Plan 13<sup>th</sup> September 2017

Rottingen, JA et al, 2014. Shared Responsibilities for Health - A Coherent Global Framework for Health Financing Final Report of the Centre on Global Health Security Working Group on Health Financing Chatham House.

Royal Australasian College of Surgeons (RACS), 2017a. Australia Timor-Leste Program of Assistance in Secondary Services - Phase II (ATLASS II) Six Month Report: January – June 2017.

Royal Australasian College of Surgeons (RACS), 2017b. Doctors for the Districts: An evaluation of the RACS' Family Medicine Program. Dili, Timor-Leste.

Singh, S and JE Darroch, 2012. Adding It Up: Costs and Benefits of Contraceptive Services—Estimates for 2012, New York: Guttmacher Institute and United Nations Population Fund (UNFPA), 2012, < <http://www.guttmacher.org/pubs/AIU-2012-estimates.pdf>>.

Sondaal, SFV et al, 2016. Assessing the Effect of mHealth Interventions in Improving Maternal and Neonatal Care in Low- and Middle-Income Countries: A Systematic Review. PLoS ONE 11(5): e0154664. <https://doi.org/10.1371/journal.pone.0154664>

Specialist Health Service, 2016. Literature review on maternal and child health for Timor Leste, 30 June 2016.

World Bank, 2014. Health Equity and Financial Protection Report – Timor-Leste. Washington, D.C.: World Bank

World Bank, 2015. Report on the Procurement Performance of the Ministry of Health, July 2015.

World Bank and OPM, 2015. Health worker survey in Timor-Leste Final report. Dili: World Bank and Oxford: Oxford Policy Management (OPM).

World Health Organization, 2013. The world health report 2013: research for universal health coverage. Geneva: WHO.

World Health Organization, 2015. Timor-Leste: WHO Statistical Profile.

World Health Organization, 2015. National Survey for Non-Communicable Disease Risk Factors Using WHO STEPS Approach in Timor-Leste. New Delhi: WHO South-East Asia Regional Office.

## ANNEXES