SOMALILAND PROGRAMME REVIEW

PARTNERSHIPS FOR GLOBAL HEALTH

November 2015

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ACRONYMS

AMS	Amoud Medical School
ANS	Amoud Nursing School
BEmONC	Basic obstetric and neonatal care
BIOHS	Burao Institute of Health Science
BU	Burao University
CEmONC	Critical emergency obstetric and neonatal care
CHW	Community Health Worker
CP	Country Programme
DFID	Department for International Development
EmONC	Emergency obstetric and neonatal care
EPHS	Essential Package of Health Services
HCS	Health Consortium for Somali People
HIOHS	Hargeisa Institute of Health Science
HPS	Health Partnership Scheme
HRH	Human Resource for Health
HTIs	Health Training Institutions
HW	Health Workers
HWFS	Health WorkForce Survey
King's	Kings College Global Health Centre
KTSP	King's-THET Somaliland Partnership
MA	MedicineAfrica
MOH	Ministry Of Health
MOE	Ministry of Education
NHPC	National Health Professions Commission
OSCE	Objective Structured Clinical Examinations
PSA	Partner Sub-Agreement
PSI	Population Service International
RHO	Regional Health Office/Officer
SIOHS	Sool Institute of Health Science
SLNMA	Somaliland Nursing and Midwifery Association
SMA	Somaliland Medical Association
SOMLA	Somaliland Laboratory Association
ToT	Training of Trainers
UOH	University Of Hargeisa

EXECUTIVE SUMMARY

Since 2000 THET has been working in partnership with local institutions to train health workers and strengthen the health system of Somaliland. In 2010 THET became part of the Health Consortium for Somali People (HCS); a consortium of five International NGOs working together to implement Essential Package of Health Services (EPHS) in targeted areas of Somaliland, Puntland and South Central Somalia. The 6-year programme (2010-2016) is funded and supported by the UK Department for International Development (DFID).

The overall goal of the THET's programme review was to assist THET in better understanding how to design the future work of the Somaliland Programme by learning from the past (programme impact and lessons learned). There were five focus areas to the review.

1. **In-country training: how can THET improve the use of volunteers to train Health Workers in Somaliland?**

Since 2000 King's has recruited UK volunteers for the delivery of 73 training trips in Somaliland. The beneficiaries were medical students, medical doctors, interns, faculty and clinical tutors, nurses and hospital managers. The training led to a transfer of knowledge between NHS volunteers and Somaliland health workers (HWs).

Key successes have been: training of faculty tutors, start-up of a mental health curriculum in Boroma University, support to the university by filling the teaching gap, introduction of new teaching methodology and Objective Structured Clinical Examinations (OSCE), improvement of sharing and learning across Somaliland institutions. For the first time Somaliland HWs were connected to the outside world by accessing a pool of qualified NHS volunteers, who mutually benefit from this relationship.

The areas for improvement are: roles and responsibilities are poorly define between THET and King's, the needs assessment process is disputed due to a lack of synergy among the stakeholders, volunteers arrive in Somaliland without adequate preparation, frontline HWs are only partially involved in the trainings even though they are the main actor for delivering EPHS, the actual trip model is not appropriate (too short, concentrated on theory), there is no centralised monitoring and evaluation on the quality of in-country training.

Recommendations:

- Improve the synergy between stakeholders by clearly defining roles and responsibilities: within THET; with King's; with local partners.
- THET should aim to source and prepare the volunteers that best match the Somaliland needs from different UK institutions.
- Frontline HWs should be prioritised in future in-country training. Suggested approaches: ToT training delivered by long-term volunteers; on-the-job teaching.
- THET should lead the monitoring and evaluation activities.

2. **E-learning: are we currently delivering it in the right mode?**

MedicineAfrica (MA) is an e-learning platform used by THET where Somaliland HWs interact with UK HWs. On MA the discussion mainly takes place through live text-only tutorials, where a UK volunteer from King's presents a topic to a small class of Somaliland students. Other ways of interacting are: real-time chat among MA online members, private messages and asynchronous communication.

The main successes of MA have been: the platform is technically fit for purpose and free of charge for the users; Somaliland HWs get exposure to topics that are outside of the curriculum; Somaliland HWs are now connected to a pool of qualified NHS volunteers; interactive teaching (tutorial and mentorship session) are needed more than theoretical knowledge.

MA challenges are: Somaliland student attendance to MA activities is low and infrequent; MA has reached a fairly limited number of Somaliland HWs compared to the level investment made by THET; MA is not

using appropriate technology to reach frontline HWs (the main actors for delivering EPHS); unresolved issues concerning the ongoing relationship between THET and MA.

Recommendations:

- THET should improve the delivery of e-learning training with local partners and users by: identifying the most appropriate technology; designing content tailored to the different cadres; delivering training at the appropriate time. Frontline HWs should be prioritised in future e-learning training.
- THET should have ownership and decision-making power over any future e-learning solution.
- THET should continue to work with King's to benefit from their pool of UK volunteers.

3. Strengthening the health regulatory body: how effective has the support to NHPC been in strengthening its ability to regulate?

'The NHPC's mandate is to protect the public' (NHPC Executive Director). With greater endorsement by the Ministry of Health, the creation of an examination board to enable standardised assessment, on-going support for the regulatory team, and more investment in educating communities about regulation, the NHPC could attain the recognition and authority it needs to fully implement its mandate.

Notable successes for the NHPC since 2010 have been: the development and moderate roll-out of the tools and processes to regulate health workers, health training institutions and health facilities; growing recognition of the NHPC's role within the health sector and amongst the public; and a functioning technical sub-committee trained to carry out assessments and deliver education workshops on the importance of regulation.

The NHPC's expansion has been limited by: the lack of an examination board to bring standardised assessment to the health workforce; reliance on THET for the majority of its staff's salaries; and progress hindered by lack of clarity about roles and responsibilities both within the NHPC and between the NHPC and the Ministry of Health (MOH).

Recommendations:

- Review THET's funding for core costs in light of the NHPC's additional donors. Consider funding community education in partnership with PSI, and consider additional funding for training regulators.
- Facilitate the relationship between NHPC, MOH, and Ministry of Education to improve government support for NHPC and support for the development of an examination board, which the NHPC deems critical for quality assurance.
- Focus on setting measurable and time-bound objectives for NHPC and review the pilot of a payment-by-results system for signs of improvement compared to resource required to implement it.

4. Strengthening the Health Training Institutions: how has THET's support strengthened health training institutions (HTIs) to educate HWs?

Under the HCS programme THET has partnered with 6 HTIs; 2 medical schools, University of Hargeisa and Amoud Medical Sschool and 4 nursing schools, Amoud Nursing School, Hargeisa Institute of Health Sciences, Burao Institute of Health Science, and Sool Institute of Health Science. These HTIs train the future HWs of Somaliland including doctors, nurses, midwives, clinical officers, and laboratory technicians.

Improved quality of teaching can be attributed to: set up of skills laboratories (built and equipped by THET); introduction of community outreach programme; facilitation of the clinical supervision to the interns; introduction of OSCEs. Successes specific to nurse training institutions: the approach of training nurses and midwifes to diploma level is adequate to meet the aims of EPHS (BIOHS approach); supporting SIOHS and BIOHS to train nurses and midwives in their own institutions addresses the human resources for health (HRH) gap in the eastern part of the country where security risks are greater.

Challenges identified: lack of regular and objective clinical assessment; poor staff retention in Hargeisa; lack of physical presence of THET in the East side of Somaliland; lack of localised training; conflicting priorities among the nursing institutions and between medical institutions (interested in establishing post-graduate courses) and THET (EPHS focus is on frontline staff serving rural regions).

Recommendations:

- Continue and expand Community Outreach Programmes.
- THET's support to the 4 nursing institutions should continue and grow (priority is for Diploma level training). THET needs to shift from a Boroma and Hargeisa-centric focus, to an equal spread across Somaliland.
- Continue with support for annual external examiners, set clear targets for each faculty at the beginning of each academic year, with a clear focus on sustainability, and an exit strategy.

5. Strengthening Health workers' skills in Emergency Obstetric and Neonatal Care (EmONC): what benefits has the EmONC CPD programme brought to trainees, Somaliland Medical Association (SMA), and Somaliland Nursing and Midwifery Association (SLNMA)?

THET works in partnership with the SLNMA and the SMA to train doctors, nurse-midwives, and midwives in Emergency Obstetric and Neonatal Care (EmONC).

Since 2010, 885 health workers have been trained in Basic EmONC and 115 have been trained in Comprehensive EmONC, using different approaches from a two-week course (most common, delivered regionally) to three months' training in Tanzania (one occurrence); the accessibility and relevance of EmONC is good. The SLNMA has developed its capacity significantly and all EmONC training is delivered by an in-house team of trainers. The SMA's capacity is less developed and locally-led training just recently begun.

Threats to the sustainability of locally-led EmONC training: availability of appropriate training equipment; SMA's reliance on THET for salaries and infrastructure support; lack of a systematic approach to accessing doctors either to be trainers or for participation in Continuing Professional Development courses.

Recommendations:

- Improve monitoring and evaluation of EmONC to include rigorous evidence on trainees' longer-term skills gain, and evaluate the relevance and suitability of THET's two-week offering; explore collaboration opportunities with other EmONC providers in Somaliland for potential efficiency savings and increased impact.
- Continue funding the development of the SLNMA's and SMA's CPD teams to sustain and increase their training activity.
- Undertake further stakeholder analysis to assess the need and potential benefit of investing in a health workforce / membership database for the professional associations to identify CPD facilitators and participants.

Programme review general recommendations

- Undertake a stakeholder analysis (or similar) to assess which partners in the UK and Somaliland will enable THET to meet the objectives of a) the new DFID funding; b) any other areas of programme work, new or on-going.
- Encourage further sharing and learning between partners in Somaliland. Consider funding for exposure visits to organisations in East Africa for training, partnership development, and strategic benefits such as developing networks with peers and potential new funding sources.
- Gradually reduce funding for Somaliland partners' core costs and provide regular financial capacity building on key areas identified by the partners.
- Commit more resource to monitoring and evaluation especially during programme design phase as well as implementation. It will be highly beneficial to the programme if access to essential data (as determined by performance indicators) is more efficient. Ensure sufficient training and budget is allocated to staffing M&E activities to ensure that responsibility does not rest with one or two members of staff.
- THET currently trains 5 cadres identified in the EPHS. THET should assess the potential for THET to train HWs in the other EPHS cadres, in light of DFID's new EPHS business case.

INTRODUCTION

ABOUT SOMALILAND

Somaliland - a post conflict country in the Horn of Africa is experiencing a steady restoration of vital social services such as health, water and education. For the health sector, many viable steps continue to be taken to revive the quality provision of health services and the rehabilitation of existing hospitals and health centres. However, most of these health facilities are not functioning to the required standards owing to the lack of trained personnel. Most of the country's Medical Doctors, Nurses, Midwives, Laboratory Technicians & other Allied Health Professionals and Health Managers left the country during the civil war. By 2013, there are only 175 Medical Doctors for an estimated national population of 3.5 million people putting the Doctor to Patient Ratio at 1:20,000, moreover with many of the qualified Medical Doctors not practicing and the rural health facilities grossly underserved (only 2 doctors serve in rural posts) (HWFS, 2015).

Since 2000 THET has been working together in partnership with local institutions to train health workers and strengthen the health system of Somaliland. In 2010 THET became part of the Health Consortium for Somali People (HCS); a consortium of five International NGOs working together to implement an integrated health programme in targeted areas of Somaliland, Puntland and South Central Somalia. The 6 year programme (2010-2016) is funded and supported by the UK Department for International Development (DFID). The funding comes to an end by March 2016.

THET implement the Somaliland programme in partnership with the following 13 partners that act as sub-contractors: UOH, AMS, HIOHS, ANS, BIOHS, SIOHS, NHPC, SMA, SLNMA, SOMLA, MOH HR, MOH DOP, King's, MA.

ABOUT THE REVIEW

The need for a programme review was initially discussed on 04 June 2015 during the regular catch up with the Somaliland Team. The possibility of having an external evaluator was initially explored, but then dismissed due to lack of funding. The Somaliland Country Representative suggested for THET staff based in the UK to lead an internal review on the main areas of interest of the Programme. The internal review included desk research, data analysis, interviews and a field visit to Somaliland. Over the course of designing the review, the team decided to involve a HRH specialist to peer review the final report. Tim Martineau, from Liverpool School of Tropical Medicine, agreed to do the peer review pro bono.

The purpose of the review is to inform the design of the Somaliland Programme's future work, by articulating the strengths, weaknesses, successes and challenges in the delivery of THET's work for HCS's integrated health programme. The review will help the Somaliland Programme to take stock of their achievements and act as a tool for the team to reflect on what they have learned, which they can build into future work.

The scope of the review is the Somaliland Programme's direct beneficiaries – recipients of training and capacity building of partners, the team did not attempt to gather data from indirect beneficiaries, such as patients or the members of professional associations. This meant that the team could focus their data collection on areas of direct importance to the programme, given the time and resources available.

Our approach to the review was mindful of the new DFID business case, which is likely to remain focussed on EPHS and therefore frontline HWs. EPHS identifies the following as key training curricula: CHWs, Community Midwife; EmONC; Registered Nurse; Auxiliary Nurse; Registered midwife; Anaesthetic Assistants; Clinical Officer training; MH Nurse; and other laboratory and pharmacist roles. Many of our recommendations have been made with this is mind, however we did not limit them to this, as other recommendations could be filled by seeking different funding streams.

REVIEW TEAM

Luca Marchina (Somaliland Programme Coordinator) – Responsible for leading the exercise. Participating in the data collection, data analysis and report writing. Leading in areas of interest n. 1 and 2.
Emily Burn (Evaluation and Learning Coordinator) - Responsible for quality control. Participating in the data collection, data analysis and report writing. Leading in areas of interest n. 3 and 5.
Claire Fearn (Somaliland Programme Officer) – Participating in the data collection, data analysis and report writing. Leading in area of interest n. 4.
THET staff based in Somaliland played a key role in preparing the visit, organizing the logistic and acting as translator when needed.

TIMEFRAME

Deliverables	Deadline / timing
TOR signed off	21/08/2015
Development of the tools	24/08/2015 – 25/09/2015
Desk review	24/08/2015 – 30/10/2015
Somaliland visit concluded	04/10/2015 – 14/10/2015
Draft report submitted	30/10/2015
Final report incorporating the comment from the relevant staff presented	14/11/2015
Peer review from external HRH expert completed	30/11/2015

METHODOLOGY

THET achieves its goals by working through collaborative partnerships with individuals and institutions, as a cross cutting theme across all 13 partners this review incorporates analysis and comments on the partnership relationships throughout.
The following 5 areas of interest were identified through joint discussion between the UK and the Somaliland team. Area 1 and 2, had previously surfaced as areas with particular challenges, warranting a clear focus in the review.

1. In-country training - how can THET improve the use of volunteers to train Health Workers in Somaliland?
2. E-Learning - THET invested a substantial budget for the development of an e-learning platform (MedicineAfrica). Are we currently delivering it in the right mode?
3. Strengthening the regulatory body - how effective has the support to NHPC been in strengthening its ability to regulate?
4. Strengthening the Health Training Institutions - how has THET's support strengthened HTIs to educate HWs?
5. Strengthening Health workers' skills in EmONC; what benefits has the EmONC CPD programme brought to trainees, SMA, and SLNMA?

For each area of interest a set of guiding questions were defined according to 5 criteria: economy, efficiency, effectiveness, sustainability, relevance. See annex 0.1 for more details.
The review team used qualitative and quantitative data collection methods and used data collection tools that would enable a wide number and type of stakeholders to input to the review.

Qualitative data collection

- Structured interviews to gather data on the partnership, held with partners and THET staff. To aid data analysis and ease comparison between interview responses, the team used an interview pro forma for questions on the partnership with THET. Interviews took place face-to-face in the UK and in Somaliland.
- Semi-structured interviews with partners, tailored to each area of interest.

- Anonymous online survey with UK volunteers and Somaliland beneficiaries about in-country training and e-learning.
- Desk review of available resources (case studies, training reports, previous evaluation, etc.).
- Focus group discussions with beneficiaries of training (in-country training and MA).

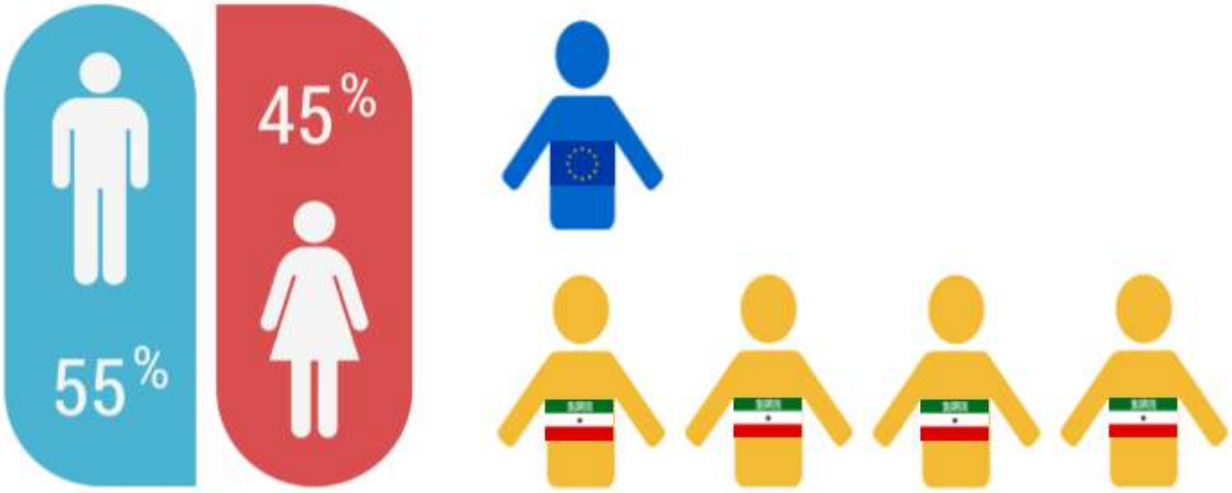
Quantitative data collection

- Desk based aggregation of financial data on each partnership e.g. funding disbursed. Data provided by THET's Finance team.
- Training data such as the number of people trained and the cost to deliver a training course. Data provided by the Programme Officer and finance team.

THE REVIEW IN NUMBERS

12 OUT OF 13 PARTNERS CONSULTED

68 PEOPLE INTERVIEWED OF WHICH 55 SOMALILANDERS



64 PEOPLE REACHED OF WHICH

46 UK RETURNING VOLUNTEERS

LIMITATION

The review team planned to interview partners in the Ministry of Health – the Department of Planning and the Department of HR – while in Somaliland but they were not available during the visit and it was not

possible to hold the interview remotely. The missing input from these MoH partners is a key limiting factor in the review.

Given the timeframe for the review, there are some areas of enquiry that it was not possible to follow through on as fully as possible. For example, professional associations' reliance on THET for salaries and core costs is raised as a weakness and possible risk yet it has not been possible to explore what the alternatives – if salary support were to end/reduce, how can THET prevent the dissolution of the association through other forms of support that may be more sustainable?

The review team is comprised of THET employees which was noted in the design stage as posing a potential issue around impartiality. Therefore, every effort was made to ensure impartiality in the review through: triangulation in data collection, standardisation of data collection tools, involvement of the Evaluation & Learning Coordinator; and engaging an external HRH specialist to peer review the report.

REPORT STRUCTURE

The 5 areas have been analysed using the following structure:

- Summary, with key findings and recommendations;
- Introduction, briefly defining the area of interest;
- Successes, looking at what worked well;
- Challenges, looking at what should be improved;
- Point of consideration, focusing on specific aspect relevant to the area of interest;

The final section of the report summarize the key programme recommendations.

1) IN-COUNTRY TRAINING

Volunteers and consultants have been used during the HCS programme for the implementation of specific training activities. This section of the review will mainly look at the contribution to the programme given by UK volunteers selected and prepared by King's.

King's - THET Somaliland Partnership (KTSP) began working in Somaliland in 2000 after a fact finding visit by two doctors and a nurse from King's College Hospital, sponsored by THET. KTSP concentrate its activities on the delivery of knowledge, skills and experience to Somaliland HWs on a wide variety of healthcare disciplines: Mental Health; Leadership and Professionalism; Paediatrics; Obstetrics and Gynaecology; Surgery; General Medicine; and Mentorship. The activities targeted mostly medical students, medical doctors, interns, faculty and clinical tutors. THET's work was to facilitate the interaction between King's and Somaliland Institutions. Initially THET staff were hosted in King's office.

As the project continued to grow THET was able to diversify funding to the Somaliland Programme by attracting more traditional donors such as Comic Relief and European Commission. In order to comply with donor funding requirements (where THET was the grantee) it was necessary for THET to be more substantially involved in programme management functions which included monitoring & evaluation, budget oversight and programme management. By the end of June 2010, THET established an office in Hargeisa (Somaliland). At the end of 2012 the management capacities of THET for the Somaliland Programme were moved from London to Hargeisa. THET's role changed from a facilitator of the health partnership between King's and Somaliland medical institutions, to managing 13 partners acting as sub-contractors, including King's. The role of King's also changed from having direct relationship to a mediated relationship with the partners. King's became the technical partner for THET in terms of training delivery (in-country trips and e-learning).

In this section of the review we will concentrate on THET and King's work on facilitating UK medical professionals volunteering their time and travel to Somaliland to carry out training sessions for local HWs.

Table 1 – In-country trainings completed since 2000

Academic Year	No. of in-country trainings	No. UK Volunteers	Returning volunteers	Total hours volunteered
2000-2001	1	3	3	285
2001-2002	1	6	1	678
2002-2003	1	1	1	87.5
2003-2004	2	6	3	672
2004-2005	5	14	5	2390
2005-2006	2	19	5	2090
2006-2007	2	8	7	679
2007-2008	2	11	6	1250.2
2008-2009	3	8	7	622
2009-2010	2	4	2	316
2010-2011	7	11	5	946
2011-2012	8	16	5	1623
2012-2013	7	29	11	2051
2013-2014	11	25	16	2591.5
2014-2015	19	45	10	4105

SUCCESSES

'It made [me] a much better doctor and taught me so much. The skills and experience gained helps me every day and has been more positively influential in my clinical, non-clinical, teaching, leadership and team working activities than I ever would have imagined. It continues to help me years later…I learnt more than I

taught,' a returning UK volunteer.

1. FACULTY DEVELOPMENT. Several trips contributed to train the tutors and to keep their education current.
2. MENTAL HEALTH. Introduction of Mental Health in Amoud medical curriculum. There were very poor capacity about Mental Health in Somaliland and through the volunteers' support (regular training, including one long-term on-the-job training) a mental health unit was developed in Amoud University.
3. Good EXPERIENCE and knowledge of the majority of the volunteers. Trainers are good in case discussion, simulation and scenarios. The beneficiaries see the knowledge and skills transfer from the volunteers as the main positive aspect of the training.
4. GAP FILLING. There is a lack of highly qualified teachers in Somaliland, the training provided by the volunteers covers this gap.
5. METHODOLOGY. New teaching styles introduced e.g. role plays, and visual aid. UK teaching differs as the focus is on achieving set competencies.
6. Improved the SHARING and learning across Somaliland institutions by bringing participants to one location.
7. Introduction of OSCE examinations.
8. Improved Somaliland's CONNECTION to the outside world decreasing professional isolation.
9. Access to a pool of qualified UK VOLUNTEERS providing their services for free. A dynamic and rich pool has been created along the years. Some are long-standing volunteers have a great local knowledge.
10. MUTUAL BENEFIT to the UK once the volunteer returns. These are some of the quotes from returning volunteers: *'The experience has broadened my teaching experience with limited resources and has helped me to think laterally'. 'It has reinvigorated my will to change things in my work place'. 'It has brought out my leadership skills and also to work effectively with available resources. I think this is a very important skill to have even in developed countries'.*

Successful approaches to deliver training:

- The 'mental health gap filling' is the only in-country training that is linked to the final year medical curriculum.
- The interns suggested 'obstetrics and gynaecology' to be the best trip because the teaching was mainly bed-side and the volunteers were involved in clinical skills and ward rounds.
- The tutor quoted 'leadership and professionalism' as one of the best courses.

CHALLENGES

'I do think that a frank discussion is needed around what these trips are achieving towards making a sustainable contribution towards improving medical training in Somaliland. At present, the links between trips and the learning needs of students appear weak with little strategic coherence,' a returning UK volunteer.

'Teacher training felt to be too short, sporadic and overall insufficient', key finding from the 3rd party verification report conducted by IBTCI on behalf of DFID in July 2015 for the HCS Programme.

1. STRUCTURE

Poorly defined roles and responsibilities for programme management between THET and King's.

The contractual relation states that King's is a sub-contractor. However THET staff expressed a feeling of being held accountable to King's and highlighted that the decision-making power regarding King's (and MA) is held at UK Office, often without Somaliland staff involvement.

King's see THET has a hybrid organization that facilitates health partnerships on the one side, but also having 2 CPs. King's want THET to have its original role as facilitator of a direct partnership between King's and the partners. They suggest that *'THET needs to view Kings differently to other partners, King's helps THET with the programme delivery, so it is a different relationship'*. They also suggested having a more central role in the next DFID grant application. Comparing the partnership perception from THET and King's

it appear quite clearly that King's is not satisfied with several aspects of the current partnership model (partnership management, role & responsibilities, resource allocation, communication, monitor & evaluation). See radar chart in annex 1.2.

Both parties agree that the structure should be changed. There are too many managers, and this has led to a waste of resources (duplication) and to unclear role and responsibilities of all staff involved in the management. In some cases THET completes work for King's when they do not have in-house capacity (e.g. financial transactions to Somaliland).

King's see too many layers to get through before reaching the partners and based on the successful experience in Sierra Leone is now expected to establish a permanent presence in Somaliland.

Recurrent communication problems happen and they are strictly linked with the structural issue. The problems can be summarised as follows: multiple conversations happening between volunteers, King's and partners without the involvement of THET; discussion on the same topic happening between different members of staff at different stages, etc. In an attempt to mitigate the problem of communication flows was agreed in the Year 6 PSA. The same communication flows that THET use with the other partner was imitated and adapted to the partnership. King's, and partially THET, did not respect the communication flow.

2. NEEDS IDENTIFICATION

The quality and the validity of the needs identification process is disputed among the partners. Moreover the trainings are not compulsory and there is no link with curricula. There is no joint planning between the nursing / medical institution, THET and King's.

THET staff stated that *'the reality is that the need doesn't come from the field. They come from King's based on their sources and interest'.* Imposed training, this was one of the negative aspects listed by the 4 nursing institutions after a joint discussion. One of the tutors added: *'the training needs should come from our side'.* One of the beneficiaries said: *'(King's should) ask the student which course is needed instead of just starting it based on their opinions'.* When consulted on this King's answered that *'[we] believe that King's can identify the needs better, which the partner may not be equipped / have the knowledge to come up with'.*

There are weaknesses in the need assessment process. THET follows co-development principles and therefore the needs should be defined through a mutual collaboration with the local partners. Technical expertise (from King's or other future partners) should come while defining the TOR. This should also contribute to improving the relevance, ownership and sustainability of the programme.

On July 2015, and for the first time, an annual plan in terms of courses and calendar was agreed between THET and King's, but the local institution were only partially involved. There is a lack of synergy between the in-country training and the work that THET is doing in Somaliland. This lack of synergy leads to:

- DUPLICATION with previous trips or with topics already covered in the hosting institutions. This was particularly emphasised by AMS.
- INAPPROPRIATE TIMING for when the training takes place. An intern reported that the '*timetable wasn't compatible for our working*'. The nursing institution confirmed that the training was planned in the wrong time when they were busy doing exams, preparing for examination and on other training dates. THET staff based in London expressed the concern that in some cases the trips are not planned according to the Somaliland institution academic year but according to volunteers' availability.
- LACK OF PREPARATION. There is a lack of preparation of the hosting institution. AMS representative stated: '*we just get the message about who is coming and immediately we have to adjust… When they come, we have to stop our lectures to attend volunteers' lectures'*. However, THET staff play a major role in arranging the logistics of the training without the local institutions being adequately involved.

3. VOLUNTEER PREPARATION

The volunteers arrive in Somaliland without adequate preparation in regards to the local context and teaching environment.

- LACK OF LOCAL KNOWLEDGE – the volunteers need sometime before training to adapt to the context. Having 1 returning volunteer in the trip is an advantage. The volunteers suggested that more information should be given prior to departure in relation to the local context (structures, local resources available, teaching equipment) and the beneficiaries (number of trainees, trainees' expectations).
- TEACHING PREPARATION – in several cases there was not appropriate joint preparation before the volunteers arrived in Somaliland. Sometimes volunteers met for the first time in the airport, in some cases one of the volunteers prepares most of the course and the second volunteer is not involved. A worst case scenario happened during the Mental Health training in May 2014 when last minute one volunteer was unable to go for personal circumstances and the second volunteer reached Somaliland completely unprepared with no training content or materials. Since January THET collected the feedback from 24 volunteers through a survey monkey. 25 % said that they felt unprepared in regards to Teaching Expectations / Environment. 50 % agree that future volunteer management should improve on this aspect. See the key survey findings in annex 1.3.

4. CADRES

Low cadres (nurse, midwife, CHW, Clinical officer, social worker) are only partially involved in the in-country trainings even though they are the main actor for delivering EPHS.

Table 2 - breakdown of the in-country training delivered or planned for the period April 2014 - March 2016

Cadres	No. of training attended	%
MEDICAL	**39**	**75%**
Final Year, Undergraduate Doctors	16	
Medical Tutor	4	
Interns	12	
Registered Doctors	7	
NURSING / MIDWIFERY	**10**	**19%**
Nurses	1	
Nursing & Midwifery Tutors	7	
Registered Nurses	2	
OTHER	**3**	**6%**
Social worker	1	
NHPC	1	
Hospital Managers	1	

The MoH expressed its intent to focus on EPHS delivery during a three-day health sector strategic review meeting for Somaliland, October 2015; this is also in line with DFID's future priorities for Somaliland.

5. DURATION

All stakeholders consulted in Somaliland concurred that the actual trip model (of 2 weeks) is not appropriate, and suggested to have longer trips ranging from 1 to 6 months.

As the dean of UOH noted *'in Somaliland we say that if you feed someone with a small spoon it will never end, we will always be hungry'*. Edna Hospital is a good example of an institution hosting long-term volunteers. Some of the volunteers noted that getting long-term volunteers can be problematic because firstly it is not easy for NHS workers to get approval for leave above 2 weeks and secondly, Somaliland is a tough environment. King's also highlighted the risk of losing some of the current volunteers once switching to long term volunteers.

6. TEACHING METHODOLOGY

At the moment the consulted Somaliland stakeholders confirmed that the teaching tends to concentrate on the theory, but the need is for practical, bed-side teaching.

THET staff said *'we should include clinical practice in the trips, we will get 3 advantages: quality of the service will improve; we teach to the HW in their working environment (the hospital); they learn from a well experienced person'.* On a tough note a doctor said: *'We need the trips, we need foreign doctors' skills, but we need them on the wards. We don't need them in the classroom, we're fed up of teaching'.* Apparently Australian doctors working with UOH do this regularly. In agreement, the nursing institutions suggested that the training to the tutor should be only practical in the wards.

7. MONITORING & EVALUATION

There is no centralised monitoring and evaluation on the quality of the in-country training.

The beneficiaries are mostly happy with the quality of the volunteers delivering the training but this should be continuously monitored. The nursing institutions highlighted that some volunteers were not adequately prepared to teach Somaliland tutors. AMS noted that some volunteers were not specialists in the specific topic of the training.

At the moment THET focuses on monitoring the numbers, the attendance and generally in getting the written reports from the volunteers. THET have only partially structured a way to collect recommendations, challenges and lessons learned from the volunteers (post-trip survey monkey and a brief final discussion in Somaliland). THET does not have a structured method to collecting feedback from the institutions. There is a loss of institutional knowledge that can be beneficial to better link the future trips, reduce duplication and improve the quality of our interventions.

COMPARISONS:

1. VOLUNTEERS VS CONSULTANTS

THET believes that volunteers offer a low-cost, high-quality approach to improving the skills of health workers. However, in some circumstances consultants – especially when sourced from East Africa - offer a better use of THET's resources.

See below a comparison of volunteers and consultants.

- SKILLS – NHS volunteers' skills and experience are internationally recognized and standardised.
- LOCAL CONTEXT - Consultants tend to have a better understanding of the local context and they easily adapt (most of them are from East Africa).
- COST – Compared to consultant UK volunteers are cheaper. We have analysed the cost of 18 in-country trainings led by volunteers in the period October 2014 – September 2015. The total cost was £104,075. If the same trips were implemented by consultants the cost would have been higher (£188,407). See annex 1.4.
- TIME – Compared to consultant, UK volunteers are more expensive in terms of staff time (recruitment, preparation, logistic, etc). See annex 1.4.
- RECRUITMENT – At the moment UK volunteer recruitment is bureaucratic, and takes time. Consultant procurement is straightforward, flexible and easy.
- RETURNING VOLUNTEER ADDED-VALUE – They add-value to the programme in terms of local knowledge and create a personal link with Somaliland HWs. Cost decreases (in terms of volunteer management) while the impact increases when volunteers return.
- EXPERIENCE – UK volunteers share their experiences with others colleagues back in the UK. They act as an ambassador of THET/ King's programme in Somaliland.

2. TRIPS' EFFICIENCY

Analysing the data from 13 trips (see annex 1.5) from September 2014 to August 2015 we calculated that an average trip costs £6,684 and involved 31 students with 33 hours of teaching, the ratio trainers vs trainees was 1:15. On average, training a class of 20 students for 30 hours cost £3,842. There is a wide variance between the cost per trainee / hour averaging from £ 1.19 to £ 14.21. Particularly 2 trips should have performed better:

- 'Intern surgery 2' the attendance of the students was the poorest among the trips (61%).

- 'Nursing & Midwifery mentorship' had a low ratio between trainers (3) and beneficiaries (17).

RECOMMENDATIONS

1a - King's should lead on the implementation of activities (acting as a sub-contractor) in specific areas with key deliverables agreed by THET in line with the programme outcomes. King's should regularly report to the THET Programme Manager. THET should avoid micromanagement.

1b - Review the team structure and map out roles and responsibilities for THET Programme team in London, looking for duplication and ways in which programme delivery can be streamlined.

1c - Improve the synergy between the stakeholders by clearly defining roles and responsibilities. The needs should be assessed by THET and the local partners once a year before the start of the academic year. A strategic training annual plan should be developed jointly with a clear TOR agreed for each trip. The annual plan should fit within the curriculum of the institutions.

1d - The preparation of the volunteers should be improved based on the suggestion of the returning volunteers.

1e – Frontline HWs (nurse, midwife, CHW, clinical officer, social worker) should be prioritised in the future in-country training passing from the actual 21 % to a range of 75 - 80 %. A support to higher cadres (with non-DFID funding) should continue with King's taking the lead and THET supporting.

1f - Training approaches should be improved. ToT training delivered by long-term volunteers should be the main focus. If feasible some short-term training can be delivered.

1g – On-the-job teaching should be the main teaching methodology for the future training. THET should verify any legal implication and requirement (e.g. medical indemnity insurance, registration with NHPC).

1h - THET should aim to source the volunteer best matching the Somaliland needs. THET should not rely only on King's but assess (and sign framework agreements) with other potential UK institutions.

1i - THET Somaliland team should lead the monitoring and evaluation activities in collaboration with the other stakeholders (beneficiaries, local partners, THET UK Team, UK institutions).

1j – An open day for volunteers throughout THET programmes (CPs and HPS) should be organized once a year as an opportunity for more volunteers to get in touch with THET and share and learn from their experiences. In addition this will support the retention of the volunteers. The open day should happen during THET Annual Conference.

1k - Efficiency should be measured from the planning stage of the training using the format developed (see annex 1.5) and guide change when necessary.

A proposed future ideal scenario about in-country training is described in **annex 1.1.**

2) E-LEARNING

MA is an online platform where Somaliland HWs interact with UK HWs. MA was founded by Alexander Finlayson in 2008 in partnership with the first 5 medical graduates in Somaliland. The first 5 years MA was driven entirely by volunteers. In January 2013 MA received a grant from THET to rebuild and further develop the platform. White October is the IT Developer selected by MA.

On MA the discussion mainly takes place through live tutorials, where a UK volunteer from King's presents a topic (i.e. power point presentation) to a small class of Somaliland students. A course is the combination of more than one tutorial on the same topic. The interaction happen through a real-time, text-only chat (audio and video options are not available at the moment). Other ways of interacting are: real-time chat among MA online members, private messaging and asynchronous communication.

THET invested an important amount of funds since January 2013 in the development of MA. A detailed table covering the period 1 January 2013 – 31 March 2016 is available in annex 2.1. The majority of the funding was managed directly by MA (£416,855). Some additional funding were managed directly by THET, such as MA staff trips to Somaliland, MA country coordinators salary and the external 'MA midterm evaluation' which took place at the end of 2014 (£22,000). Some additional funds were managed by King's and relates to King's programme manager salary (20 % of the time dedicated to MA). It is important to note that from April 2016 there are no development activities, apart from routine maintenance, expected and therefore the annual running costs should reduce. That being said we also need to consider that IT is a very dynamic sector, as the partnership manager of Future Learn pointed out: *'the IT sector is not grant-based and needs continuous investment'*.

Table 3 – Participation from UK and Somaliland HWs to MA activities

Academic year	No. of courses	No. of UK volunteers	No. of unique Somaliland participants
2010/11	4	29	24
2011/12	2	*unknown*	26
2012/13	5	33	25
2013/14	15	85	131
2014/15	21	80	155

In 2014/15 academic year there was 21 courses, composed of 105 tutorials (158 hours of lessons). Out of 155 Somaliland HWs who participated in MA activities (either a tutorial or a mentoring session), 137 of them registered and participated in at least 1 course. 60% of them did not complete any course (aiming for an ideal of 75% attendance to the tutorials).

Figure 1 - Courses completed (min.75 % attendance)

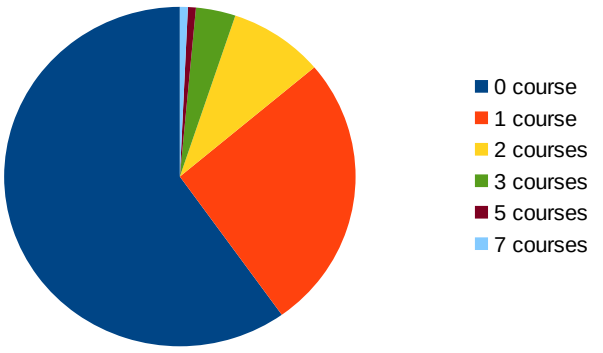
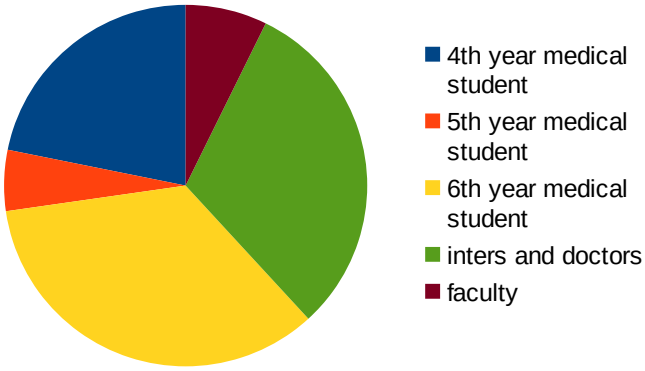


Figure 2 - Cadres of the students that concluded at least 1 course



It's important to note that this section of the review it's strictly linked with the e-learning need assessment that THET is actually undertaking with the aim of developing of an *e-THET* solution that should serve all the

THET partners (within HPS and the CPs) in the future.

SUCCESSES

1. TECHNICAL REVIEW. The midterm evaluation states that *'the site met currently acceptable standards and that the development process followed by White October and the MA team was appropriate...the platform is sound and fit for the purpose'.*
2. EXPOSURE TO TOPICS that are outside of the curriculum. Topics that are not taught in Somaliland due to no local capacity.
3. RELATIONSHIPS are built between Somaliland HWs and UK volunteers. This includes: exposure to other ways of working; live interaction; creation of one-to-one mentor relationships; feedback on particular cases. There is also an important aspect of connecting Somaliland HWs to the outside world, mitigating against professional isolation.
4. UK VOLUNTEERS POOL involved in the teaching. A high number (80) UK volunteers were involved last year. The ratio of UK volunteers versus Somaliland participant is 1:2. The 'MA Assessment Report' produced by King's states: *'Tutors report feeling professionally invigorated by their participation and bring an enhanced understanding of health systems and medical education into their roles as UK health professionals'.*
5. FREE OF CHARGE for the users.
6. 4 PILOT RESEARCH studies published, including Somaliland authors.
7. MA provides INTERACTIVE TEACHING through live sessions (tutorial and mentorship session), these are more needed than theoretical knowledge.
8. IT EXPOSURE **-** Somaliland HWs see one of the main successes of using MA is that they are exposed to the use of technology and they have access to online resources. Hargeisa nursing school director stated that *'we need it [e.g. e-learning], because the person who doesn't know ICT is illiterate in this world*'.

CHALLENGES

1. BARRIER TO PARTICIPATE TO MA

Somaliland student attendance to MA activities it is low and infrequent.
These are the main barriers:

- The teaching content of MA is not linked to the curricula. The midterm evaluation states *'the evaluation noted concerns about the coordination between MA and the universities in Somaliland with respect to content and curricula but applauded the efforts underway to ensure greater collaboration and consistency.'* The problem has not been addressed so far. King's programme manager confirmed that *'MA teaches areas that are not available in country, so not linked to the curriculum, but critical aspects that are needed.'* The needs are not coming from the Somaliland institution, but are mostly identified in the UK. As one of the MA coordinator said, *'at the moment they [King's] design the course, they send me an email with all the information and then I pass all the information to the doctors and the interns. Maybe it will be better to ask to us. I can go to the interns and get their opinion and then communicate with Max.'* AMS representatives confirmed *'mostly King's choose and send to us and we accept it. If we need to add or change, we can discuss and give our input. We need a mixture of courses that are aligned to curricula and then some that are outside'.* There is a loose link between the Faculty, THET and MA. In practice there is no synergy between MA teaching and the other teaching activities included in THET programme. As MA is not linked to the curricula the students are less motivated and interested in participating in tutorials.
- A low-speed internet is available only in the urban areas of Somaliland. Generally internet is not reliable and stable. All the HWs that are not working in the urban areas can only have access to mobile broadband.
- IT barriers. The MA coordinator in Hargeisa said that all the doctors and medical students are reported to have access to a laptop, but the situation is different for nurses and other low cadres. Usually there is no formal IT education, so even if the HWs have a computer they just have a basic knowledge of the IT environment. During the academic year 2014/15, low cadres (nurse, midwife,

CHW, Clinical officer, etc.) were not involved in MA, despite them being the main actors delivering EPHS, the focus of the DFID Programme.

- Timing. All the stakeholders consulted in Somaliland pointed out that the timing of the tutorial is not compatible with their working schedule. The 2 to 3 hours difference between UK and Somaliland is an external factor that affects this. Timing is a recurrent problem raised in the Midterm Evaluation and also by King's and MA. Medical students, interns and doctors have different time windows when they are available.
- IT infrastructure within the Universities and the hospitals. Although some of the universities have basic computer laboratories, they don't have reliable IT infrastructure.
- Language barrier. HWs proficiency in English language is low particularly among the frontline HWs.
- Text exchange gives a more limited interaction than having an audio and video chat. The UK tutors unanimously agreed that at least the screen sharing option should be added in MA.
- User-friendly. 30 % of the users consulted through a survey monkey noted that MA is not user friendly.
- The tutorials are private and you must be a member to view its content. This require a registration that is not automatically accepted but require the approval from King's Programme Manager. The registration process can take up to 2-3 days. The UK tutors agreed that access to the tutorial should be public to MA community after the course is finished.

2. EFFICIENCY

During 2014/15 academic year 155 unique Somaliland users were involved in MA activities. This number is deemed low compared to the massive investment done by THET on MA in the last 3 years.

MA founder said that *'the benefits of e-learning over face-to-face learning is about the reduced financial and environmental impact'.* The Midterm evaluation states that *'it is too early to effectively determine whether the investment by THET in MA has been efficient and resulted in good value for money'.*
We have compared the cost of delivering 1 hour of lesson through MA with the cost of delivering 1 hour of lesson through in-country training. We looked at the period October 2014 – September 2015. Surprisingly, the cost of delivering tutorials through MA is 9.5 times more expensive. See a detailed table in Annex 2.2. A single typical in-country training (2 trainers in Somaliland, 10 teaching days) delivers more hours of training than MA in 1 year. At the moment the running costs (exclusive of the development costs) are extremely high compared to the low achievement. Looking at the period October 2014 – September 2015 we can estimate that every user of MA cost £347.96.

3. APPROPRIATENESS OF MA

Mobile technology is moving fast in Somaliland. On September 2010 when MA was introduced in the Somaliland Academic year WhatsApp was just starting its operation, and it is likely that there were limited smartphones in Somaliland. According to the information collected while in Somaliland we can estimate that 95% of the doctors and a good percentage of nurses (60-80%) have a smartphone. The MA nurse coordinator in Hargeisa said that *'the students are from generation .com, I can say that 80% of them use Facebook, WhatsApp and they have smartphones'*.
All the interviewees agreed that in Somaliland HW have more access to smartphones than to computers. The internet connection through a computer is quite weak, while the mobile broadband is more reliable, cheaper and accessible even in rural areas. There are several tools (WhatsApp, Facebook, Google Hangout, Skype, etc.) that can represent a reliable, free-of-charge and user-friendly alternative to MA. WhatsApp (own by Facebook) is the leading messaging app with almost 700 million users (as of January 2015). WhatsApp is well known in Somaliland and already successfully tested by MA users during their tutorial. During the FGD with the medical students they explained that WhatsApp was used during 4 psychiatry tutorials *"we made our sessions in WhatsApp. Tutorials happen on WhatsApp. The tutor posts a question and we can respond."* In addition the interaction between King's programme coordinator and the MA coordinator is now based on WhatsApp, *"we use it for the meeting sessions for coordinators. We also answered a questionnaire for Max on WhatsApp."*
Facebook is also used as alternative tool for facilitating a direct interaction between Somaliland and UK

HWs. A group called 'Continuous Psychiatric Teaching' was created by 2 King's volunteers after volunteering in Somaliland and it has 245 members. The group has been used for document sharing.

4. THET-MA RELATIONSHIP

The Midterm Evaluation states that '*the evaluation highlighted unresolved issues concerning the ongoing relationship between THET and MA. The business model was unclear, particularly for distance-learning through MA for THET programmes outside of Somaliland. The relevance in other contexts still needs to be established and issues of ownership and roll-out should be further discussed.*'

We can look at this from different angles:

- THET INTERNALLY: As King's programme manager acutely noted: *'THET have never fully understood MA'.* This is the reality. Only in the last few months THET has started internal discussions about MA and generally about its e-learning needs.
- STRUCTURE: The structure is over-complicated and includes several stakeholders involved (THET – King's – MA – White October).
  MA started as a spinoff activity from King's. There are too many layers: THET funding, King's being the main user of the platform, managing the volunteers delivering the tutorials and reporting on MA activities, MA managing the platform (with support from King's), White October being the IT developer.
- BUSINESS MODEL: there is no business model at the moment.
  MA founder and King's agreed on the fact that the relationship started with a shared aim and vision but this have been lost over the years due to 2 main reasons:
  i. Staff changes in THET. The creation of MA was not perceived as a priority by the team in Somaliland. The main sponsor of the platform were THET staff in London. Once they left THET the institutional memory of the initial aim and vision got lost.
  ii. Less advocacy from MA. Generally a lack of communication. MA founder during the interview said *'I want this discussion with THET more often'.*
- OWNERSHIP: THET fully financed with DFID funding a platform of which they have no ownership. Moreover MA receive special treatment in terms of Intellectual Property Rights compared to the other partners.
  The standard written agreement that THET has with the other 13 project partners (article 18.4) states that '*The Project Partner hereby grants, to DFID and THET, an irrevocable worldwide, revenue-free licence in any and all media in perpetuity to use all materials, software, tools, reports, and all other documentation produced in the course of the Project or otherwise in connection with or arising out of this Agreement for external use, research, publicity and other internal purposes.'*
  Unexpectedly, MA agreement at article 12.4 says '*THET acknowledges that all Intellectual Property Rights in the Platforms and any modifications belong and shall belong to the Project Partner, and THET shall have no rights in or to the Platforms other than the right to use it'.*
- ROLL OUT OF THE PLATFORM: THET fully financed with DFID funding a platform of which has no decision-making power.
  The platform was rolled out to other partnerships (Palestine, Sierra Leone, India, etc). THET was not involved in the roll out. MA acted based on article 12.2 of the agreement *"This Agreement shall not prevent the Project Partner from entering into similar agreements with third parties, or from independently developing, using, selling or licensing documentation, products and/or services relating to the Platforms."*
- PARTNERSHIP PERCEPTION: THET is not satisfied about the actual partnership model. MA is not perceived as a strategic partner by THET staff, who rate MA achievements as the lowest among the 13 partnerships. See radar chart in annex 2.3.

RECOMMENDATIONS

2a - THET should continue to work with Kings to benefit from the pool of volunteers.

2b - Any future e-learning activity should be planned with the local partners to ensure relevance to the Somaliland HW needs:

- The e-learning content should be designed with the local institution and linked to the curricula.
- The timing of the teaching should be tailored based on the preferences of each cadre.
- An appropriate technology (for the beneficiaries and for the local context) should be used.

2c - We embrace the recommendation given in the Midterm Evaluation: *'content for other cadres of health worker must continue to develop rapidly so that non-medical students may benefit from MA'.* A particular focus should be on low cadres (nurse, midwife, CHW and clinical officer, etc.). An e-learning solution should be piloted with these cadres using mobile technology.

2d - In future programmes, THET will work with partners to identify the most appropriate use of technology to meet the needs of the users. THET should try to use existing technology to avoid duplication.

2e - THET should consult its legal department to understand whether the roll out of MA in other countries than Somaliland is breaking any DFID-contract rule.

2f - THET should have ownership and decision making power of a possible future eTHET solution. These are the suggested steps to be followed:
STEP 1 - THET should clarify its eTHET needs throughout the organization (HPS and CPs). The information collected in Somaliland should be incorporated in the e-learning needs assessment.
STEP 2 - THET should launch an open tender according to THET procurement rules inviting companies to present a proposal for fulfilling eTHET needs. MA should be invited.
STEP 3 - The best proposal should be awarded with the contract of developing the eTHET solution. If MA is selected to implement eTHET this should be done based on a new contractual basis without reference to the current contractual relation.

3) STRENGTHENING THE HEALTH REGULATORY BODY

Regulating the health workforce of Somaliland is fundamentally about protecting the population from health care providers who do not meet minimum standards of expertise and care. Regulation should happen at all levels of the health system: individual health workers; health facilities; and health training institutions. Regulating the quality of its workforce is a considerable challenge for Somaliland with diaspora health workers returning to the country to practice, and a growing private sector for education and service delivery.

'The NHPC's mandate is to protect the public' NHPC Executive Director. With greater endorsement by the Ministry of Health, the creation of an examination board to enable standardised assessment, on-going support for the regulatory team, and more investment in educating communities about regulation, the NHPC could attain the recognition and authority it needs to fully implement its mandate: '…to protect the public by ensuring the quality of health care provided by Health Professionals and Health Care Facilities as well as assessing and monitoring that Health Training Institutions are adhering to the standards set for health training and education.' (www.nhpcsomaliland.org)

Below are detailed the most significant inputs that THET has made to the NHPC, according to THET and NHPC staff.

Financial support

- Office running costs.
- THET funds the salaries of NHPC staff: 1 Admin & Finance Officer, 5 Regulations Officers, 1 Programme Development and Support Officer, and 1 IT/database officer. THET also funds some of the salaries for 4 support staff (e.g. driver, guard, cleaner), with additional support from the government. In total, THET pays 12 out of 15 staff salaries.

Both the NHPC and THET staff believe that without this financial support the NHPC would not be able to function. *"NHPC is the car and we are the fuel",* THET programme officer.

Technical support

- Advice and guidance at a strategic level: THET bridges the relationship between the Ministry of Health and the NHPC. In this way, THET is involved in a highly political relationship and is well-positioned to advise the institutions on how they can work together.
- Supporting the development of assessment tools specific for Somaliland and training for NHPC staff in how to implement them. These tools are vital to NHPC's function and the evidence so far suggests that the regulation officers have been able to implement them in their assessments of hospitals/health clinics, and training institutions.

SUCCESSES

1. DEVELOPMENT OF A REGULATION SYSTEM

As a result of financial and technical support from THET, the NHPC has the tools and expertise to roll out a regulation system. This has been achieved through training a team of technical staff – Registration Officers – and broader training in regulation for the organisation's management team.

Engaging a peer organisation – the Ugandan health professionals' council – to share skills and knowledge with the NHPC was a relevant and impactful approach to training. The NHPC team did an 'exposure visit' to the Ugandan health professionals' council. It was well received by NHPC as an opportunity to understand how regulation works in practice. Following this visit, the NHPC developed the draft tools to ensure their relevance for Somaliland. These tools are not a finished product, but a work in progress, which need on-going review to ensure they are fit for purpose.

Results reported by interviewees

- In 2014, NHPC exceeded by 100% its target for the number of health workers registered – 600.

- 12 public healthcare facilities (2 per region) and 4 private healthcare facilities have been registered.
- 4 public and 1 private health training institutions have been assessed but they have not yet met the criteria. NHPC is giving these institutions more time to develop.

Registration officers hold education workshops on regulation and instruct institutions and health workers in how to complete the registration tools.

2. ORGANIZATIONAL DEVELOPMENT AND DIVERSIFICATION OF FUNDING

'I've always believed it's healthy for institutions to diversify its funding sources. I have lobbied the government. I was successful in 2014 to get some government funding.' Executive Director, NHPC.

The NHPC has developed enough as an organisation to be in a position to attract funding from other sources with 70% of its running costs now coming from the Ministry of Health. The NHPC has also achieved funding from the International Organisation for Migration (IOM) for the Executive Director; PSI and Progressio have both provided technical support; and in 2013/2014 NHPC received some funding from WHO and will look to apply for more funding in 2015. These are all indications of the NHPC's increased profile and its increased capacity to lobby key stakeholders for investment.

3. RECOGNITION OF NHPC'S ROLE

According to THET's programme officer, approximately 50% of the health sector is now aware of the NHPC and its role, which they attribute to the media campaign they did using billboards, radio, and TV advertising. This campaign was only partly funded by THET (other funding sources not specified). Recognition both within the health profession and by members of the public is vital to drive forward regulation.

It should be noted that, due to resource limitations, the reviewers did not gather data from professions represented by the NHPC nor from those institutions and facilities that have been assessed. Data from these parties is important for understanding how NHPC is viewed by key stakeholders, such as its legitimacy to regulate and perceived benefits of accreditation (or equally risks of not meeting NHPC's standards). Any further exploration of this review's findings should address this deficit in the data.

4. DEVELOPMENT OF A TECHNICAL TEAM

The NHPC now has a technical sub-committee, all from clinical backgrounds, who can do assessments and deliver education workshops for health workers on the importance of regulation and how to complete the regulation forms. With expertise developed at this hands-on level of the organisation, the organisation would now benefit from greater capacity at the management level, specifically someone with hands-on experience of the challenges of regulation and how to work with multiple stakeholders (government, funders). THET is well positioned to lead on an assessment of training needs.

CHALLENGES

1. LACK OF AN EXAMINATION BOARD

'An examination board is critical…we need the expertise of how to do this, even on a voluntary basis.' Executive Director, NHPC.

An examination board will bring fairness, impartiality and consistency to the assessment of health professionals. The development of an examination board should be in collaboration with the Ministry of Education and Ministry of Health and THET would have a facilitative role to play in this collaboration.

Perhaps somewhat aspirational at this point in time, the partnership could also consider how the standardisation of assessment through the NHPC's collaboration with these government bodies (MoH and MoE) will lay the groundwork for the development of a CPD system for health professionals so that training is linked to a formal system of accreditation. Both the SLNMA and SMA raised the need for an accreditation system. These organisations see a real need for formal recognition (such as CPD points) for its members, as a way to promote quality in the workforce and to increase participation in CPD trainings.

2. FUNDING FOCUSED ON STAFF SALARIES

The NHPC staff's salaries are mainly funded by THET, with the exception of the Executive Director who is funded by IOM. The risk is that, with THET funding mainly going on staff costs, there will be very little to show for this investment in terms of tangible outputs and outcomes, especially if the NHPC stalls on progress. The NHPC states that 70% of its funding now comes from other sources and that if THET funding were to end, it would indeed be missed and turnover would occur, but the organisation would not fall apart (Executive director, NHPC).

To encourage greater focus on demonstrating results, THET has trialled a form of payment-by-results for NHPC, requiring the partner to submit a budget and terms of reference for each activity. The success of this trial such as a before and after comparison of results since the implementation of the trial, was not within the remit of this review. Given the pilot nature of this approach, the reviewers recommend that THET reviews how the trial of NHPC's payment-by-results has gone: what worked well; what challenges are there to working with the NHPC in this way? THET should also do a risk analysis such as: how will payment-by-results affect the relationship; what happens should the partner over-achieve on an objective? As part of reviewing this trial, also assess how beneficial this has been compared to the funding approach they take with other partners in terms of the resource it takes to oversee this tight control of expenditure versus improvements in results.

3. DEFINITION OF ROLES AND RESPONSIBILITIES, WITHIN NHPC AND WITH THE MINISTRY OF HEALTH

THET interviewees flagged the lack of definition in the roles and responsibilities both within the NHPC – as well as between the Commission and the MoH – as a concern. This lack of definition weakens the Commission's ability to carry out its mandate and poses a threat to its sustainability. There is a critical role for the NHPC in delivering a quality control and assurance service that, according to feedback from THET staff, the MoH does not have the capacity to do itself. However, it should be noted that THET was not able to interview stakeholders from the MoH and therefore these claims about capacity need further investigation and verification.

Registration, licence renewal, and accreditation fees could all flow to the NHPC but currently these are not being collected. The NHPC is addressing this by working with the Ministry of Finance – no data was collected on how this arrangement is working out.

RECOMMENDATIONS

3a - NHPC's ability to attract other donors and technical support indicates potential efficiency savings for THET and therefore the team should review the current level of financial support that it provides for salaries and operating costs and discuss the impact of this reduction with the NHPC.

3b - Re-consider providing financial support for NHPC to enhance the impact of their communication strategy. Explore how best to empower communities to ask questions of their service providers, through awareness-raising activities and a programme of education on regulation. THET should engage with PSI's community engagement strategy, advocating the inclusion of education about regulation.

3c - Maximise THET's strategic role as a 'bridging partner' between the NHPC and MoH, to encourage the government to take on a stronger role in promoting regulation and enforcing regulation policies.

3d - Do a training needs assessment a) NHPC staff's skills; and b) to gradually increase the pool of trained regulators on the basis that the NHPC's assessment and registration activities will continue to grow.

3e - Facilitate NHPC to work with MoH and MoE to establish an examination board; to include a feasibility assessment, scoping alternatives or interim measures and, depending on the outcome of the preliminary work, technical assistance to support the development of the board and materials.

3f - Review funding to the NHPC. If funding for core costs continues, ensure that the partner also has measurable, time-bound objectives, show that it is possible to demonstrate how THET's inputs have made a difference.

3g - The MoH has limited capacity to deliver regulation in-house therefore it is critical that funding should continue for NHPC's regulatory activities.

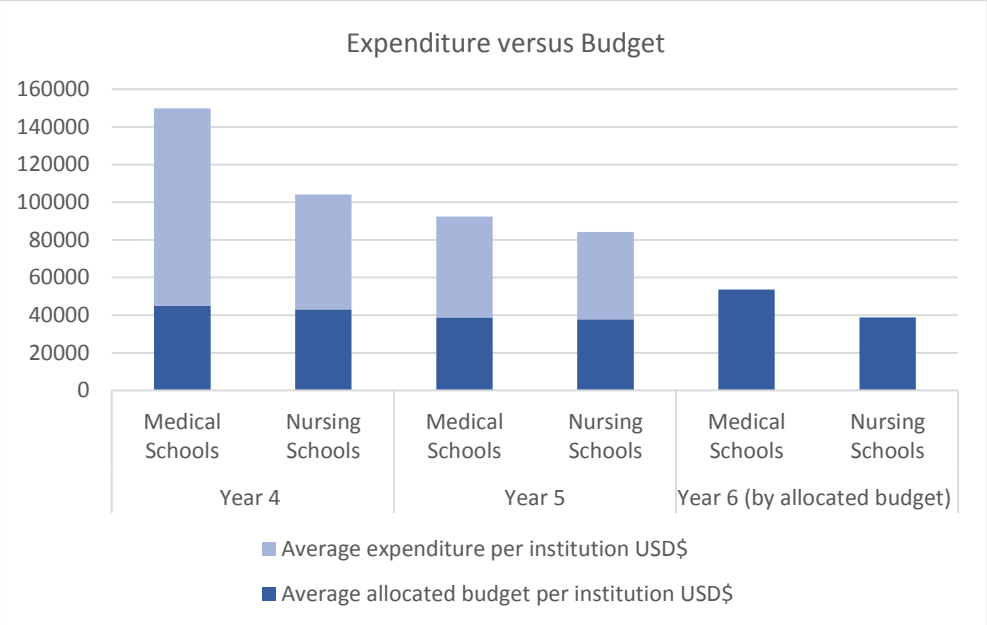
3h – Review the payment-by-results approach trialled by THET; compare results before and after this approach was trialled. Consider the additional management load required to implement this system – is it proportional to the degree of improvement seen in results?

4) STRENGTHENING THE HEALTH TRAINING INSTITUTIONS

Under the HCS programme THET has partnered with 6 HTIs; 2 medical schools, UOH and AMS and 4 nursing schools, ANS, HIOHS, BIOHS, and SIOHS. These HTIs train the future HWs of Somaliland including doctors, nurses, midwives, clinical officers, and laboratory technicians. By investing and supporting the training institutions to provide quality and thorough training, THET aims to improve the quality of care at the all levels of the health system. THET holds Partner Sub Agreements (PSAs) that detail the budget and activities with all 6 HTIs, but the partners also benefit from indirect support through other THET activities, such as financial training and networking at stakeholder meetings. Thirdly, HTIs have access to one-off funding for key activities when available. Please note Edna Aden Maternity Hospital and Nugaal University receive some indirect support. While the HTIs are all at differing stages in their organisational needs, the support given follows similar strands, see table 3 for a full breakdown.

The HTIs are expanding: increasing student intake; increasing the breadth of courses delivered; and moving towards higher level education. The 2015 HWFS shows that the majority of HWs reside in urban settings. This area looks at how we have strengthened HTIs so far, and highlights key recommendations for future partnerships. The findings in the IBTCI report 2015, are also referenced.

Figure 3: Budget Allocation by Project year versus Expenditure of Nursing and Medical Schools



The PSAs for project years 4 and 5 indicate a fairly equal budget distribution between the HTIs, although a slightly higher allocation in favour of the medical schools. In year 6, UOH received approximately $20,000 more than the nursing schools. THET received an extra grant through HCS in year 4 and 5, which explains the spike above the budgets allocated; with more expenditure for medical schools in comparison to nursing schools. The significance for future funding streams, especially those focusing on EPHS and lower cadres will likely influence the spread of funding away from medical schools. The full breakdown is available in Annex 4.1.

Table 4: Summary of THET Support to HTIs

	UOH	**AMS**	**HIOHS**	**ANS**	**SIOHS**	**BIOHS**
	Doctors	Doctors	Lower Cadre HW	Lower Cadre HW	Lower Cadre HW	Lower Cadre HW
PSA Support (within partner annual budgets):						
Salary support	*PO; Clinical Coordinator; Nursing*	*PO; Clinical Assistant.*	*Director; 5 Tutors; Finance/*	*Director; 3 Tutors; Driver; Finance/*	*Director, 5 Tutors; Finance/*	*Director; 7-8 Tutors; Finance*

	Coordinator; Admin		*Admin*	*Admin*	*admin*	
Medical consumables	✓	✓	✓	✓	✓	✓
Meetings, stationary	✓	✓	✓	✓	✓	✓
Community Outreach	✓	✓	✓	✓	✓	✓
Facilitator training.		Y				
OSCEs				✓	✓	
Clinical Instructors					✓	
Exposure visit for students						✓
Support received outside partnership budget:						
Participation in trainings by NHS volunteers	*e.g. Leadership and Management*	*e.g. Leadership and Management*	*e.g. Mentorship for Tutors*	*e.g. Mentorship for Tutors*	*e.g. Mentorship for Tutors*	*e.g. Mentorship for Tutors*
Project management training e.g. finance	✓	✓	✓	✓	✓	✓
NHS External Examiners	✓	✓		✓		
Curriculum Development			✓	✓	✓	✓
One-off support costs:						
Skills laboratory and equipment	✓	✓				
OSCE stations	✓	✓				
Library		✓				
Clinical Coordination Office		✓				
Furniture			✓	✓	✓	✓
New website					✓	

SUCCESSES

1. CROSS CUTTING HTIs

- PROVISION OF EQUIPMENT - Using extra funding allocated from DFID in year 4, THET was able to build and equip skills laboratories at each of the HTIs. All referred to the importance of the skills laboratory as a place to teach anatomical skills and clinical skills in a safe environment. Dr Ismail of AMS recognised the infrastructure support as things that *'remain alive for years.'* This sentiment was also echoed by one BIOHS Tutor *'this has dramatically changed our old traditional way of teaching;'* they are able to effectively use all manikins, with the exception of two that they need training on.

- COMMUNITY OUTREACH – All HTIs have introduced community outreach programmes now and have an allocated budget line within the THET grant for this, the institutions or their students occasionally top up this budget.

Within the scope of the review it was not possible to contrast the outreach programmes run by the different HTIs and analyse their outcomes, however the review has exposed the importance community outreach plays in the training health workers and forging relationships with communities and inter-profession, refer to the below *case in point* for a specific example.

Case in point - Amoud University, (AU and ANS) run a combined cadre, community outreach programme, with two types: rural and urban. The weekly urban outreach visits communities, Maternal and Child Health Centres (MCH), and Schools.

a) Communities: students are allocated a family, it is then their responsibility to treat children, and manage the patient over a 4-month period.
b) MHC: antenatal assessments, health education for pregnant women. They provide incentives (flask, soap, sorghum, etc.) to encourage women to deliver in the MCH.
c) Schools: conduct a pre-test, followed by health education sessions on relevant topics (reproductive health, hygiene, smoking, khat, etc.), concluded with post-test.

Rural community outreach, visit other villages further away from the college once or twice a year. Set up as a medical camp with up to 500 people participating and receiving free medical services and drugs.
Community outreach has contributed to shared learning in Amoud, students within the different specialities (e.g. laboratory, medical and nursing) learn to work together as a team, the nurses and doctors have a good relationship. Outreach is also a key source of practical experience, which mitigates against the lack of clinical instructors at the hospitals. The HTIs also note that outreach helps form relationships between the students and the communities, with who they will work with when they join the workforce.

- CLINICAL SUPERVISORS SALARY SUPPORT IN AMS – As demonstrated in *Table 4*. THET pays the salaries of Clinical Supervisors to work with the Interns. In the first instance, the salary support that is given to the Clinical Supervisors provides the motivation to support the interns. Secondary, the importance of good supervision impacts the skills of the interns, ultimately resulting in an improved service to patients. AMS felt the Internship Programme has *'changed the services of the hospitals, overall this increases the capacity of the hospital and improves hospital services.'*

- INTRODUCTION OF OSCES – THET/Kings introduced OSCE exams in the HTIs in Boroma and Hargeisa, OSCE stations at AU were established in 2013/14, and external invigilators are sent annually to Hargeisa and Boroma. Both medical and nursing institutions generally view the OSCE training and support received from volunteers as one of the *most relevant* to their organisations. The establishment of OSCEs has also contributed to forging good relationships between institutions; evidenced by ANS acting as external examiners for BIOHS and SIOHS to conduct their OCSEs for their students.

2. NURSING EDUCATION

- Professional Training Level. As a proportion of all nursing students, the figure studying to diploma level is higher than degree level. However, there is a clear shift away from diploma to BSc nursing and BSc Midwifery in ANS, where HIOHS, BIOHS and SIOHS are still running diploma. Please see annex 4.2 for a full break down. The BIOHS strategy and vision is a good example of contributing to the EPHS proposal; their focus is to train nurses to diploma level, encourage them to gain work experience for 1 or 2 years, and after, return to train in the top-up BSc. In comparison to completing the 5-year BSc immediately, their students become more involved in patient care and are more likely to stay and work in Burao. Diploma level nursing and midwifery is adequate to meet the aims of EPHS, with post basic training to upgrade to a clinical officer.

- Wide Geographical Spread. The 2015 HWFS determined that there are 66 nurses and 23 midwives in Sanaag, and 72 nurses and 30 midwives in Sool (both diploma and degree). This compares to 619 and 154 nurses and midwifes respectively, working in the more urban Maroodi-jeeh, which includes Hargeisa. Supporting SIOHS and BIOHS to train nurses and midwives in their own institutions addresses the HRH gap in the Eastern side of the country, where insecurity is greater; midwifery and nurse graduates trained by SIOHS tend to stay to work either in Sool or Sanaag, areas where there were previously no nurses. '*[BIOHS] have contributed a lion's share in improving the health statures of Toghdeer region. I believe 80% of health professionals in the region are produced by the institute with assistance of THET'* Burao RHO, 2015 IBTCI Report. *"I recall Las'anod having no single professional nurse at that time [1982]...Today, we have at least 100 highly qualified nurses [trained through the Institute alone] and without the existence of Sool Institute of Health Science at Las'anod that would have been impossible."* Sool RHO, 2015 IBTCI Report. If training were to be held in Hargeisa, it is less likely that they will return to work. The EPHS requires huge human resource to be established, in the first instance this requires training HWs to be able to operate at the different levels of the health system, especially at the community level. THETs partnerships with the nursing schools in the East of Somaliland is contributing to addressing this challenge. THET does not currently support any nursing schools in Sanaag or Sahil.

CHALLENGES

1. CROSSCUTTING

- CONTINOUS ASSESSMENT - While the July OSCE exams are received positively by the faculties as described above, UOH stated that *'there is a misunderstanding about OSCE, it should be the daily job they do in the ward, [and the students] should be assessed daily.'* Students that graduate tend to be good in theory, but not in clinical settings, regular and objective clinical assessment, possibly via long and short case examinations throughout their undergraduate training would increase the quality of HWs produced. The exact nature of the problem, and how it can be best addressed needs to be further assessed however, the UOH have stressed an emphasis on supporting the supervisors to supervise in order to combat this.

- POOR STAFF RETENTION IN HARGEISA – In contrast to the success of the clinical supervisors at AMS, there is high staff turnover at the University of Hargeisa, alongside problems of leadership and coordination, also highlighted in the IBTCI report. Tutors at the UOH are only part-time employees, HIOHS tutors are now responsible for academic and clinical teaching, in the past they had separate clinical staff to supervise on the ward. THET staff stated that if the partnerships were to end today, only the physical changes will remain, all the staff trained by THET have either already left, or will leave without salary support.

2. NURSING EDUCATION

- Remote support, and localised training. SIOHS reported to be very satisfied with the THET partnership and *'communicates easily with THET mainly by email'* but it is *'difficult [for them] to travel to Hargeisa where the meetings [and trainings] always are.'* BIOHS also advocated for volunteers to travel to Burao to train tutors there. An example highlighted by ANS as an effective strategy is the 2-year community midwifery diploma program (funded by UNFPA), the trainees come from the rural communities, complete a 2-year program and then they go back into their communities. They receive their certificate only once they have completed 3 years working in the rural communities.
- Student intake. ANS has a steady student intake suitable to the resources available; in comparison HIOHS averages 80-90 per year, with no clinical instructors.
- Conflicting priorities. SIOHS, argued that they are in competition with many private universities that are offering BSc and other post-grad qualifications, so why would students opt to complete diploma level with them? This is also demonstrated by ANS no longer training diploma nurses.

3. MEDICAL EDUCATION

- Other HTI. THET staff have reported a pressure to financially support Burao University and Golis University. THET does not currently support any medical schools in the East of the country.
- Student Intake. 2007-2015 the number of medical students graduating has slowly risen, however graduating students will double in 2016, as Golis University have students reaching the final year, and Burao University in 2017. Please see annex 4.2 for full break down.
- Conflicting priorities**.** Amoud Medical School and University of Hargeisa, Medical School identified establishing post-graduate courses as a clear aim in the review interviews. THET staff shed concerns that this may not be a key priority for THET when there are existing issues with the quality of training in the undergraduate curriculum, examinations, and medical internship training. In addition, EPHS focus is on frontline staff serving rural regions. Out of 197 doctors present in Somaliland, at the moment 195 work in urban settings, Master or PHD health workers are likely to serve the urban centres only.

RECOMMENDATIONS

4a - Continue and expand Community Outreach Programmes in the future and use this framework to underpin future activities within HTIs. Develop further guidance and evidence on how the target community is identified? What resources do the teams require in order for it to be effective? How are the health workers capturing and retaining their family's data? Establish a M&E framework to capture the impact on the student's personal competencies and the community, at a service delivery level.

4b - THET's support to the 4 nursing institutions should continue and grow (see recommendation 1g). Diploma training level should be a priority within the nursing schools, following EPHS recommendations. Identify possible partners in Sahil and Sanaag for future proposals.

4c - THET needs to shift from a Boroma and Hargeisa centric focus, to an equal spread across Somaliland. Taking into account, security, logistics and best practice on remote support.

4d - Continue with annual external examiners support, set clear targets for each faculty at the beginning of each academic year, with a clear focus on sustainability, and an exit strategy. E.g. identify further areas where we can facilitate the nursing schools to train each other, and replicate in the medical schools. Address what mechanisms are needed to train supervisors to continuously assess students at minimum in the last year (in both clinical and theoretical knowledge).

4e - THET to consider how best to work in partnership with UOH and HIOHS to find a more sustainable future.

4f - Medical education, including Post Graduate training should not be a priority for THET under EPHS programme. Please refer to recommendation **1e** and **6j**.

5) STRENGTHENING HEALTHWORKERS' SKILLS IN EmONC

THET works in partnership with the Somaliland Nursing and Midwifery Association (SLNMA) and the Somaliland Medical Association (SMA) to train doctors, nurse-midwives, and midwives in Emergency Obstetric and Neonatal Care (Basic level and Comprehensive level, which includes caesarean section). The SLNMA has an active team of trainers who travel to health facilities in rural and urban areas to deliver training. The SMA has coordinated training but up until October 2015, training was delivered by local or regional facilitators, rather than by a dedicated team of SMA trainers.

Training doctors, nurses and midwives in EmONC and CEmONC is essential in meeting the objectives of Somaliland's EPHS.

THET has supported the delivery of EmONC (includes BEmONC and CEmONC) using several different approaches:

1) Two doctors from Sahil completed a two-month placement at Amoud Medical School in Boroma, supervised by tutors from the school;
2) Three months' training for six nurses from Sahil region (an EPHS pilot region) at The Tanzanian Training Centre for International Health to equip them with skills in Caesarean section. This approach was taken in response to a request from Health Poverty Action (implementers of EPHS) who identified a gap in Caesarean section services in regional and referral hospitals in Sahil.
3) A two-week course in BEmONC/CEmONC for nurses and midwives, delivered by the CPD team of SLNMA who travel to the regions. Separately, a two-week course in CEmONC for doctors, delivered by members of the SMA, or consultants from the UK or East Africa, conducted in Hargeisa. Additionally, there is a newly formed team of ToTs starting to deliver training alongside facilitators, with the first course held in Burao, October 2015;
4) Creation of the BEmONC and CEmONC manuals. In 2015, two consultants from The Tanzanian Training Centre for International Health worked with the SLNMA and SMA to review the existing BEmONC and CEmONC manuals.
5) THET support to the SLNMA for staff salaries and office running costs, and funding the activities of the CPD team. THET support to the SMA for staff salaries and office running costs, and providing training for the CPD team and doctors.

THET has produced case studies and a short film which describe the difference that CEmONC training has made to the practice of nurses, midwives and doctors.

Initially the reviewers planned questions for those people who had attended the training, however, they amended the questions to change the focus to the associations coordinating and providing the training as they are the direct beneficiaries of THET funding and can reflect on successes, challenges, and suggest improvements. Evidence from case studies and a film 'Task-shifting to save lives in Somaliland' film were also reviewed.

Between July 2010 and September 2015, 885 health workers have been trained in BEmoNC and 115 health workers have been trained in CEmONC.

Table 5: number of health workers trained in BEmONC and CEmONC since programme inception in 2010

Type of Training	2010	2011	2012	2013	2014	2015	Total
CPD inc. BEmONC	0	225	147	183	330	0	885
CEmONC	0	0	0	20	78	17	115

SUCCESSES

1. ACCESSIBILITY AND RELEVANCE OF THE TRAINING

The different ways that THET has supported BEmONC/CEmONC training demonstrates responsiveness and flexibility in its approach, which has ensured a 'good fit' for health workers depending on the context and their needs. The short courses are highly portable and good for staff who would struggle to travel to a training site. The intensive training has proven a success for smaller cohorts (see CEmONC case studies) in order to meet a regional demand and need.

The SLNMA's CPD team travels to regions to deliver training for those who otherwise would not be able to access it for example, if it required travel to Hargeisa or Boroma. The CPD team has travelled to all six regions of Somaliland. The short duration and frequency of the BEmONC and CEmONC courses has meant that nurses and midwives have been able to access this CPD. By comparison, the UNFPA three-week course reached just five doctors (SMA programme manager).

The flexibility of the SLNMA's CPD team to travel to the regions has meant that the training has reached many nurses and midwives. This approach reduces participant costs but there may be a risk that with time, there will be greater attrition amongst the CPD team: *'staff work very hard, they go to the regions, endanger their lives but they only get salary, no pension, health insurance, or other benefits.'* SLNMA Chief Executive. The CPD team may grow tired of the travel, time away from home and other responsibilities and so this aspect of sustainability needs to be considered in more detail.

2. STRENGTHENING THE SLNMA

Funding for the SLNMA's CPD team and technical support to create appropriate manuals has contributed to the development of the SLNMA: it has five regional 'chapters' (offices) each with seven staff. These chapters enable the delivery of EmONC training by liaising with the Regional Health Officer to arrange the training and then ensuring that only nurses and midwives attend as on occasions, other cadres have tried to participate for whom EmONC is not relevant.

3. THE USE OF TOTS AND LOCAL EXPERTISE TO DELIVER TRAINING

The SMA raised the issue of using its own facilitators to deliver CEmONC training during the evaluation of the UNICEF funded programme (2013). Since then, facilitators from Somaliland, who are members of the SMA, have delivered CEmONC training. This is in addition to sessions taken by international consultants hired by THET. The SMA potentially has a pool of resource in its membership that the association could engage to provide CPD training for its members although it should be noted that, in the absence of a HW database with doctors' profiles the SMA cannot easily draw on these skills to deliver training.

CHALLENGES

1. AVAILABILITY OF TRAINING EQUIPMENT

The 2013 evaluation of the UNICEF-funded BEmONC and CEmONC training programme highlighted the deficit in adequate and appropriate training equipment. Equipment availability remains a problem with both doctor and midwife training teams having to loan equipment from the Hargeisa Institute of Health Sciences. This is economical in the short-term but neither practical nor sustainable if the ambition is to have self-sufficient teams of trainers.

2. CAPACITY OF SMA TO DELIVER

SMA as a professional association is not well-established and it has achieved limited growth in the last 10 years. The SMA, compared to other professional associations supported by THET, has a low volume of activity and has sought few opportunities for more independent development for example, strategic partnerships or ways to diversify its funding. It requires a lot of energy and input from the THET team in terms of project management, setting objectives, ensuring activities are monitored and reported, and sustaining the partnership.

SMA has skilled members who can deliver CEmONC and other CPD activities for its members yet they make only limited use of this resource as: a) they do not have a database detailing the skills of its members and so

no systematic way of accessing these skills; and b) the organisation's limited capacity to drive CEmONC training forward means that this is not a resource that can be assumed or relied on.

3. LIMITED DATA ON TRAINING OUTCOMES

The CEmONC case studies submitted to HCS as part of THET's reporting provide some evidence in the form of health worker testimonials of the value of this training in improving skills. The THET-produced film is a compelling story of the impact of the training on an individual nurse from Sahil, trained at The Tanzanian Training Centre for International Health. Given the different options for EmONC training available in Somaliland and regionally (East Africa), more evidence is needed to understand the effectiveness of THET's approach, specifically with regards to the two-week course. Additionally, the SLNMA's training reports are comprehensive accounts of the success of the training and short-term skills gain and now the programme should look for ways to substantiate this evidence with data on nurse and midwife performance three to six months after the training, making use of the SLNMA's regional offices and good links with RHOs, to source this data.

4. MULTIPLE COURSES AVAILABLE FOR CEMONC AND BEMONC IN SOMALILAND

There is a crowded market for CEmONC training in Somaliland: the UNFPA offers a three-week course and a three-month course, held at Edna Adan Hospital, Hargeisa. The WHO has recently commenced a nine-month CEmONC course. It was not within the remit of the review to investigate opportunities for collaboration with other providers and THET would benefit from exploring this further. For example, does THET know how the two-week training fits with these other offerings: are the target audiences different; how does course accessibility compare; how do the delivery costs compare; and to what extent do the curricula and guidelines align between the different organisation's offerings?

5. ON-GOING REVIEW OF THE COURSE CONTENT

The review of the BEmONC and CEmONC manuals was deemed a success by both the SMA and SLNMA: the process was collaborative between the ToT teams and the consultants leading the process. The guidelines now include more topics but there is still a question about the level of practical training and whether the CEmONC course could or should be extended to three weeks to allow for a week of training dedicated to Caesarean sections.

RECOMMENDATIONS

5a - Explore the feasibility of supporting the SLNMA to develop regional CPD teams to reduce the opportunity costs for the current CPD team; strengthen the SLNMA's geographical reach; and improve access to the training.

5b - Support the SLNMA's CPD team to continue its BEmONC training in order to retain their skills as trainers, strengthen the role of the SLNMA as a provider of critical CPD training to its members, and in recognition of the important role the team has in the sustainability of the SLNMA.

5c - Utilise the CPD teams (SMA and SLNMA) to give refresher training to those who had intensive training in Tanzania or Boroma.

5d - Review all training equipment available to the SLNMA's CPD team and work with them to identify what additional or different equipment they need.

5e - Undertake further stakeholder analysis to assess the need for a health workforce / membership database for the professional associations. For example, further analysis is required to determine whether investment in a membership database for the SMA would in fact lead to increased CPD activity.

5f - Consider how best to leverage the skills and expertise of the SMA's members in line with the programme's objectives.

5g - Gather evidence on the effectiveness of the different approaches that THET has taken to delivering CEmONC/BEmONC to ensure that the package of training offered is relevant, measurable, and that the capacity built in the short-term has the potential to be sustained. Also, look at ways to increase data on health worker performance three to six months after the training to understand the impact of the two-week training course.

5h - Do further analysis of training results: a) how the numbers of health workers trained compares to other EmONC/CEmONC offerings; b) the cost to deliver the two-week course; c) has this cost decreased over time.

6) GENERAL RECOMMENDATIONS

These recommendations have arisen from multiple sources across the review and either are not specific to a single area of interest, or have a wider applicability to the programme.

6a - Assess which partners in the UK and Somaliland THET should partner with in order to meet the objectives of a) the new DFID funding; b) any other areas of programme work, new or on-going. This assessment could take the form of a stakeholder analysis. For those partners that are important for the delivery of the next programme, ensure that THET reflects on these partnerships both in terms of how will they contribute to the programme and how THET can remain relevant to them, not just providing core costs, but also key skills and strategic incentives.

6b - THET should work closely with other donors (meetings, conversations, sharing activity plans, etc.) to avoid duplication of effort and see where the gaps in support are.

6c - *'All the tutors are from Burao, grew up and studied there,'* BIOHS representative. *'The tutors lack exposure to the external world,'* HIOHS representative. If THET are to continue supporting these institutions in a future grant, as a minimum THET should encourage further sharing and learning between the Somaliland institutions, the partners should decide on the themes. A more comprehensive approach would be to expose the institutions to organisations outside of the country, facilitating East Africa partnerships; this could also open up training opportunities. This will bring strategic benefits to the organisations in terms of peer learning, opportunities to influence or expand their work and potentially their funding sources.

6d - *'We have to diversify our sources of funding and not rely on one donor. This is a key strategic aim for SMA.'* Chairman, SMA. Provide those institutions that are reliant on THET for its core costs with the training and technical support to diversify their funding. Over time the aim should be to gradually reduce THET's funding of core costs.

6e - THET conducted an English language needs assessment in 2014, outlining the scope for a pilot training, due to security concerns the pilot project did not go ahead. THET should revisit the project plan and follow on actions as recommended by the needs assessment.

6f – At the start of the next programme, there should be a THET-wide approach to designing a robust M&E system; invest in the design stage by taking time for all staff to input into what the system should be. This approach will foster greater engagement with M&E processes as everyone will agree the data to be collected and how it will be collected. A budget should be allocated to M&E that is sufficient for a rigorous design phase as well as support to review the M&E system no later than 12 months into implementation of the next programme. Sufficient training and budget should also be allocated to staff resource for M&E so that skills in data collection, management, and analysis do not rest with one or two members of staff. This should include giving more staff access to and responsibility for managing programme data in HCSSHARE.

6g - The majority of partners and THET staff (with the exception of King's) commended the strength of communication. In any future programme these good relationships that have been developed should be nurtured.

6h - Regular financial capacity building on key areas identified by the partners.

6i – In the current programme, and in light of the upcoming DFID EPHS business case, THET currently trains 5 cadres identified in the EPHS. THET should assess the potential for THET to train HWs in the other EPHS cadres; Auxillary Nurse; Anaesthetic Assistants; ICRC training in trauma surgery; Mental Health Nurse Diploma; Assistant Laboratory Training; Laboratory Technician training; Pharmacist training; Drug prescribing training.

LIST OF TABLES

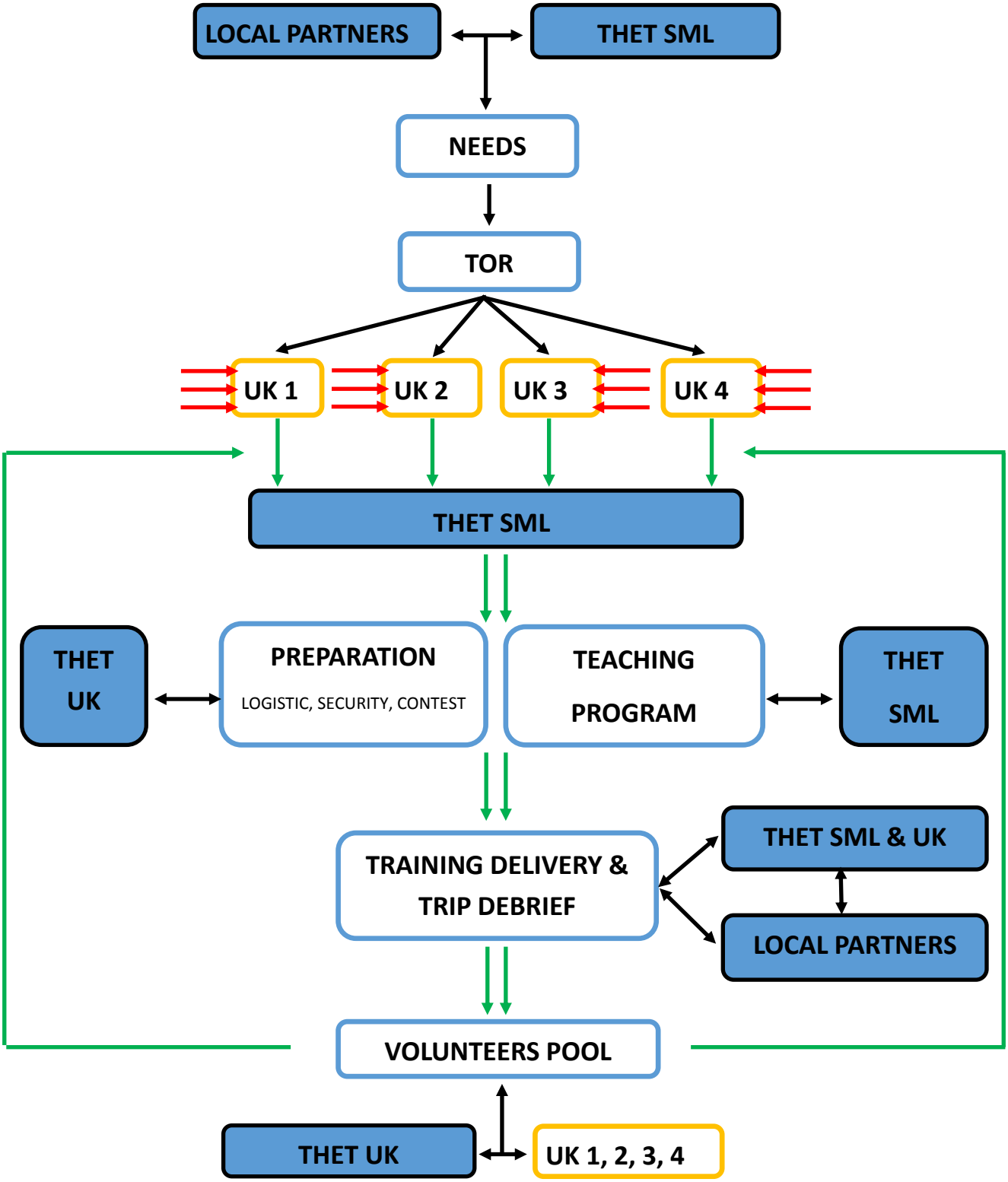
LIST OF FIGURES

Annex 0.1

AREA OF INTEREST	ECONOMY	EFFICIENCY (input vs output)	EFFECTIVENESS (output vs outcome)	SUSTAINABILITY	RELEVANCE
PARTNERSHIP: *What is the value for the local institution to work in partnership with THET?*	1. What are the differences in budget allocation among the partnerships (including year6)? How are the trends for each partnership? 2. Are the capacity increased (for example: Has the organisation increased its income / expenditure)	1a. What is the partnership relationship like? 1b. How does the budget allocation reflect this?	1. Which partnerships are more established and which need to be improved? 2. Are there any Intangible benefits?	1. What leadership structures and policies are now in place that were absent at the start? 2. What happen in case the partnership stop?	1. What were the most relevant training / capacity building activities? 2. What are the priority areas that should be included in a future partnership?
IN-COUNTRY TRAININGS - *How can we improve our use of volunteers to train HWs in SL?*	Can we reduce the cost of sending volunteers overseas? (e.g. travel dates, flight paths)	1. Are we getting the right outputs from each trip? *(no training days, ratio of trainers to trainees, student availability)* 2. How much have we saved by using volunteers instead of consultants?	1. How can we improve the outputs of the trips? - *Does it make sense to use other UK institution to provide NHS volunteers?* - *Is there a way to better link incountry trips with university curriculum?* - *Is the current 2 week structure the most appropriate? Are there other ways to do it better (long term volunteers, TOT, visit to neighbour countries, etc.)*	1. What are the barriers to sustaining the delivery of training to HWs that is currently delivered by volunteers? - *external (e.g. security risks; unsupporting NHS institutions; annual leave)*	1. Are the topics relevant to Somaliland Health Worker? 2. What should be improve to better address the needs?
ELEARNING: *are we currently delivering it in the right mode?*	1. Are there cheaper / better solutions in the market for elearning?	1. Has the cost to deliver MA courses decreased or increased since it began (per participant and considering only the running costs)? 2. What are the forecasts for the future? 3. Compare MA tutorial with King's trips and with other e-learning solution?	1a. What are the E-learning needs of the beneficiaries? 1b. Which providers can meet THET e-learning needs?	1. How can we ensure the sustainability of the e-learning mode?	1. Are the topics relevant to Somaliland Health Worker? 2. What we should improve to better address the needs?

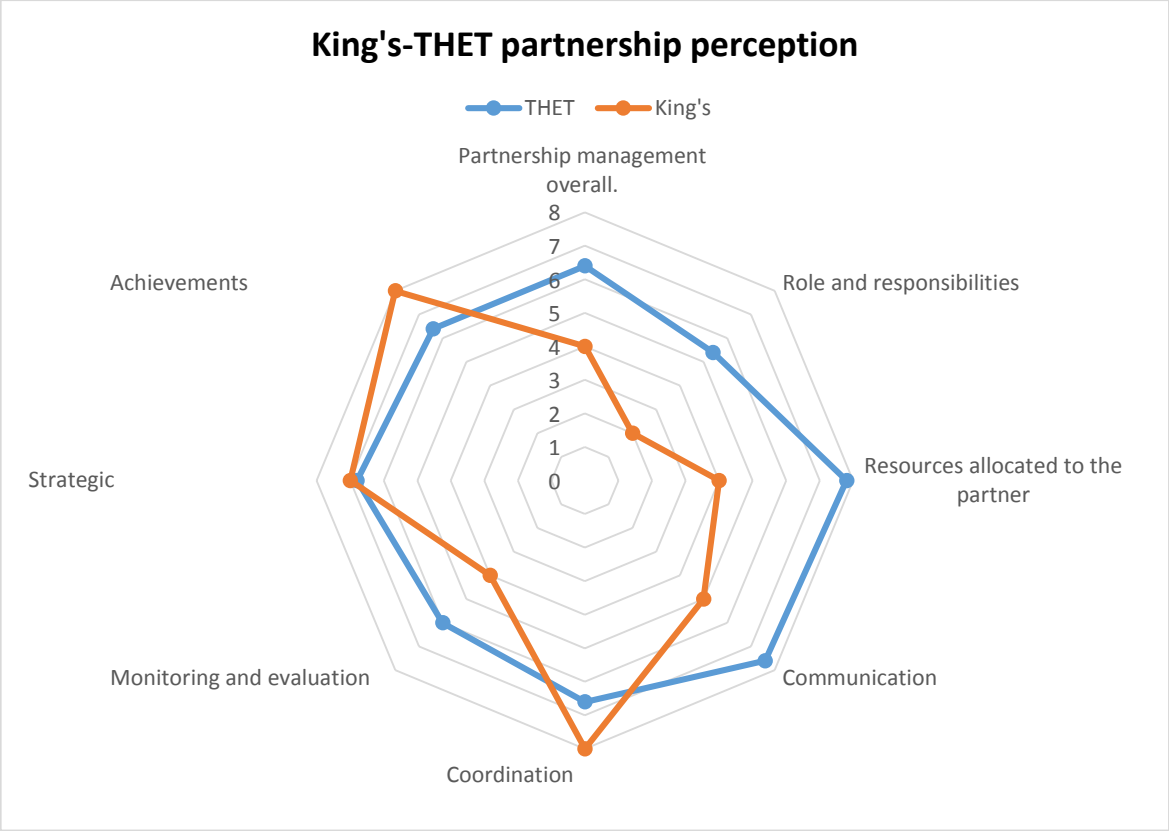
REGULATORY BODY Strengthening of the regulatory body: *How effective has the support to NHPC been in strengthening its ability to regulate (focus on the tools developed) ?*	What roles do we support within NHPC?	1. Do the tools and policies you use ensure that you are registering, certifying and accrediting to the highest possible level of quality?	1a. Why is regulation important in health systems generally? 1b. And specifically in SL? 2. What other indirect THET support aids regulation? 3. Are there any intangible benefits?	1. How will you continue registering members after THET funding? 2. How will you ensure members details are up to date on an annual basis? 2b. Do members have to pay an annual fee?	1. Do you think the members and non-members recognise the significance / benefits of NHPC? 2. If THET were to get further funding, what support would be most relevant moving forward?
MEDICAL SCHOOL Strengthening of the Health Training Institutions: - *How has THETs support strengthened HTIs to educate HWs?*	1. What is the average cost of running a nursing and a medical faculty for one year? *(expressed as a percentage student contribution and donor contribution)*	1. Pass rates before/after? 2. What topics are now being taught (than before)? 3. Do they offer any independent trainings? 4.Trend in intake and graduate.	1. What new critical skills are students graduating with as a result of support which were lacking before?	1. Do they receive student contributions (fee)? 2. Do the trainings support sufficient skills transfer?	*Addressed in partnership questions.* What are the priorities for the future?
EMONC TRAINING Strengthening of individual Health workers/ cadres: *How successful were the EmONC training?*	1. What is cost to complete life saving skills training (BEMONC)?	1. How many people were trained? 2. What is their geographical spread? 3. What is the cost per health worker?	1. What benefits has THET support brought to SMA and SLNMA? 2. What impact has the training had on nurses, midwives, and doctors' practice? 3. CPD training effectiveness – did it provide adequate preparation?	CPD's current activity, on-going availability of trainers, retention, and risks to sustaining CPD teams' activity.	Does the support provided by THET meet the associations' and CPD teams' needs e.g. equipment provision? What critical skills are missing for the CPD teams and for the EmONC trainees?

Annex 1.1 - In-country training future process



1. The needs are assessed by THET and the local partners.
2. A TOR is agreed for each training.
3. The TOR is advertised within UK institution providing volunteers.
4. Documents (CV, application letter) from short-listed candidates from each UK partner institution are shared with THET and the appropriate candidates are selected by THET HSSM.
5. The logistic of the trip and the briefing before departure are managed by THET staff in the UK.
6. The teaching program is agreed among the volunteers and THET Somaliland staff.
7. The volunteers in pairs visit Somaliland for a period of at least 1 month and the teaching are mostly practical (bed-side). THET and the local partners collaborate with the volunteers for the successful delivery of the training. Successes and challenges are explored during a joint debrief.
7. The volunteers pool is managed by THET in collaboration with the UK partners institution as a mechanism to retain volunteers.

Annex 1.2


King's-THET partnership perception
THET
King's
Partnership management overall.
Role and responsibilities
Resources allocated to the partner
Communication
Coordination
Monitoring and evaluation
Strategic
Achievements
8
7
6
5
4
3
2
1
0

Annex 1.3

FEEDBACK FROM VOLUNTEERS WHO PARTICIPATE IN THE TRAINING IN 2015 - FINDINGS

Information collected from 23 volunteers that visited Somaliland for the delivery of training. 16 female and 7 male. 7 were returning volunteers and 2 are from the diaspora.

100% felt prepare in the face of any security or medical incident.

100% recommend the experience to other potential volunteers.

Please rate the following on how clearly they were communicated to you prior to departure.			
Answer Options	**Unclear, felt unprepared**	**Adequate, but could have been better**	**Very clear, felt prepared**
Visa	0	5	18
Flights	0	0	23
Per Diem	0	5	18
Health (vaccinations etc)	0	1	22
Insurance	0	1	22
Accommodation	0	1	22
In Country Transportation	0	2	21
Teaching Expectations / Environment	5	5	10

Were the following logistics well organised and seamless? Please provide supporting comments as necessary.						
Answer Options	**Strongly Disagree**	**Moderately Disagree**	**Neutral**	**Moderately Agree**	**Strongly Agree**	**Unable to rate**
Flights	0	0	0	3	20	0
Airport Entry and Exit	0	0	0	5	3	0
Accommodation	0	0	0	2	21	0
Finances (Emergency $500.00)	1	1	0	4	17	0
In Country Transport	0	0	1	6	16	0
Daily Security Updates	0	4	4	4	9	2
Teaching Space	0	1	2	7	10	3
Teaching Resources	0	4	3	5	8	3

Is there any other information that would have been useful to know prior to departure?
Have more information about the local contest and the beneficiaries (structures, local resource available, teaching equipment, trainees number, trainee expectation)
Get recommendation from previous volunteers

What were the main challenges you faced?
inconstant attendance from the trainees
lack of adequate preparation from UK
lack of enough time
lack of support from local institution
lack of appropriate training material (models, consumables, etc.)
logistic issue

impact on volunteers' careers (best quotes)
The experience has broadened my teaching experience with limited resources and helped me to think laterally.
It has reinvigorated my will to change things in my work place
It was an excellent experience. It has brought out my leadership skills and also to work effectively with available resources. I think this is a very important skill to have even in developed countries.

Annex 1.4

Delivery of training course. Comparing actual volunteers costs vs consultants estimated costs. Period October 2014 - September 2015.			
Volunteers		**Consultants**	
Volunteers management costs	**£ 29,635.10**	**Consultant costs**	**£ 139,776.00**
Clinical lead (80%)	£ 9,216.00	Total consultancy costs. Daily consultancy rate (£256) for 39 consultants involved in 14 days of training (inclusing preparation, training delivery, travel and reporting).	£ 139,776.00
Programme Manager - Oct 2014- Mar 2015 (45 %), Apr 2015 - Sept 2015 (30%)	£ 11,485.15		
Office	£ 1,500.00		
Trips	£ 4,000.00		
Admin	£ 2,497.42		
Contingency	£ 936.53		
Trip related costs	**£ 74,439.66**	**Trip related costs**	**£ 48,631.22**
Accommodation trainers	£ 18,944.00	Accommodation trainers	£ 18,944.00
Flight cost	£ 28,461.44	Flight cost (estimated at 450 £)	£ 17,550.00
DSA	£ 10,464.96	DSA	£ -
visa	£ 1,889.28	visa	£ 1,889.28
insurance	£ 4,027.14	insurance	£ 4,027.14
vaccination	£ 4,432.04	vaccination	£ -
in-country transport	£ 6,220.80	in-country transport	£ 6,220.80
ACTUAL COSTS (using volunteers)	**£ 104,074.76**	**TOTAL ESTIMATED COSTS (using consultants)**	**£ 188,407.22**

Annex 1.5

INPUT																
	May-15			Apr-15		Mar-15	Feb-15		Jan-15			Nov-14	Sep-14			
	Based Practice, and OSCE TOT.	MH Y6 Revision	Mental Health	Intern Paediatric 2	Intern Surgery 2	Intern Obstetrics and Gynaecology 2	Leadership and Professionalism	Intern Paediatrics 1	Mentorship Part 2 Nursing and Midwifery	Intern Surgical Trip 1	Intern Medical 1	MH Undergraduate	N&M Mentorship 1	TOTAL	AVERAGE
Description	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP	GBP		
Cost of air ticket trainers	1325.12	1283.12	1283.12	1256.12	1256.12	1283.52	1335.52	1361.72	1956.18	1236.92	1480.02	1503.26	1882.98	18443.72	
Accommodation trainers	852	639	805.14	639	639	720	792	528	825.6	768	576	768	1116	9667.74	
Transport London	120	120	120	120	120	120	120	120	180	120	120	120	180	1680	
Daily per diem	437.36	488.48	308.14	387.66	387.66	462.24	429	390.72	458.88	440.32	349.44	394.24	572.88	5507.02	
Transit cost	36	36	36	36	36	36	36	36	54	36	36	35	52.2	501.2	
Visa trainers	113.6	113.6	113.6	113.6	113.6	115.2	105.6	105.6	145.92	116.48	97.28	97.28	141.36	1492.72	
Insurance trainers	206.52	206.52	206.52	206.52	206.52	206.52	206.52	206.52	309.78	206.52	206.52	206.52	206.52	2788.02	
Vaccination trainers	55	0	327.14	154	407.32	551	245.54	251.5	68.5	368	166	137	794.8	3525.8	
In-country transport for the trainers		482.8	1363.2	426	426	432	396	396	294.4	384	384			4984.4	
Renting venue	319.5		497											816.5	
Allowance for the trainee	6265.75		1863.75						1568					9697.5	
Stationery	142		355								25.6			522.6	
Training material	0		1073.52					342		411.96				1827.48	
other	2070.36		153.36										1804.2	4027.92	
TOTAL (GBP)	**£ 11,943.21**	**£ 3,369.52**	**£ 8,505.49**	**£ 3,338.90**	**£ 3,592.22**	**£ 3,926.48**	**£ 3,666.18**	**£ 3,738.06**	**£ 5,861.26**	**£ 4,088.20**	**£ 3,440.86**	**£ 3,261.30**	**£ 6,750.94**	**65482.62**	
Volunteers management costs	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**£ 1,646.39**	**21403.07**	
GRAND TOTAL COSTS	**£ 13,589.60**	**£ 5,015.91**	**£ 10,151.88**	**£ 4,985.29**	**£ 5,238.61**	**£ 5,572.87**	**£ 5,312.57**	**£ 5,384.45**	**£ 7,507.65**	**£ 5,734.59**	**£ 5,087.25**	**£ 4,907.69**	**£ 8,397.33**	**£ 86,885.69**	**£ 6,683.51**
OUTPUT															
Days in country (add)	12	14	9	12	12	12	14	13	12	15	12	12	12		
Days of training:	8.5	8	5	6	6	8	6	8	8	8	8	10	9		
Hours of training	**51**	**48**	**35**	**36**	**36**	**48**	**39**	**48**	**56**	**48**	**52**	**60**	**54**	**611**	**50.92**
interns	0	0	0	18	15	24	0	24	0	36	26	0	0		
medical students	0	24	0	18	21	24	0	24	0	12	26	60	0		
clinical supervisor	0	0	0	0	0	24	0	0	0	0	0	0	0		
nurses	51	0	35	0	0	0	0	0	56	0	0	0	54		
other	0	0	0	0	0	0	39	0	0	0	4	60	0		
Number of trainees (or beneficiaries):	**28**	**64**	**18**	**67**	**55**	**72**	**38**	**55**	**17**	**53**	**90**	**70**	**17**		
interns	0	0	0	14	10	14	0	13	0	23	23	0			
medical / nurse students	0	64	0	53	45	55	0	42	0	30	39	70			
clinical supervisor	0	0	0	0	0	3	0	0	0	0	0	0			
nurses	28	0	18	0	0	0	0	0	17	0	0	0	17		
other	0	0	0	0	0	0	38	0	0	0	28	3			
Number of trainers:	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**2**	**2**	**3**	28	2.15
Number of returning trainers:	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**1**	8	0.62
Attendance(%):	**100%**	**89%**	**95%**	**72%**	**61%**	**76%**	**100%**	**59%**	**100%**	**74%**	**70%**	**95.50%**	**100.00%**	1092%	84%
interns	0	0	0	56%	40%	56%	0	52%	0	92%	92%	0.00%	0		
medical students	0	89%	0	76%	64%	79%	0	61%	0	43%	56%	94.00%	0		
clinical supervisor	0	0	0	0	0	100%	0	0	0	0	0	0.00%	0		
nurses	100%	0	95%	0	0	0	0	0	100%	0	0	0.00%	100.00%		
other	0%	0	0%	0	0	0	100%	0	0%	0	100%	97.00%	0		
Trainee * attendance rate	**28.00**	**56.96**	**17.10**	**48.12**	**32.80**	**54.29**	**38.00**	**32.38**	**17.00**	**34.06**	**71.00**	**68.71**	**17.00**	515.42	1002.84
interns	0	0	0	7.84	4	7.84	0	6.76	0	21.16	21.16	0	0		
medical students	0	56.96	0	40.28	28.8	43.45	0	25.62	0	12.9	21.84	65.8	0		
clinical supervisor	0	0	0	0	0	3	0	0	0	0	0	0	0		
nurses	28	0	17.1	0	0	0	0	0	17	0	0	0	17		
other	0	0	0	0	0	0	38	0	0	0	28	2.91	0		
Total hours:	**1428**	**1367.04**	**598.5**	**866.16**	**664.8**	**1302.96**	**1482**	**777.12**	**952**	**916.56**	**1230**	**4122.6**	**918**	16625.74	1278.90
interns	0	0	0	141.12	60	188.16	0	162.24	0	761.76	550.16	0	0		
medical students	0	1367.04	0	725.04	604.8	1042.8	0	614.88	0	154.8	567.84	3948	0		
clinical supervisor	0	0	0	0	0	72	0	0	0	0	0	0	0		
nurses	1428	0	**598.5**	0	0	0	0	0	952	0	0	0	918		
other	0	0	0	0	0	0	1482	0	0	0	112	174.6	0		
Location:	HGA	HGA & BOR	BER	HGA & BOR	HGA & BOR	HGA & BOR	HGA & BOR	HGA & BOR	HGA	HGA & BOR	HGA & BOR	HGA	HGA		
EFFICIENCY															
Average hours of training per group of trainee	51	24	35	18	18	24	19.5	24	56	24	26	60	54	433.50	**33.35**
Average cost per trainee / hour for each trip	£ 9.52	£ 2.46	£ 14.21	£ 5.76	£ 7.88	£ 4.28	£ 3.58	£ 6.93	£ 7.89	£ 6.26	£ 4.14	£ 1.19	£ 9.15	83.24	**6.40**
Cost 20 hours class of 30 students	£ 5,709.92	£ 1,478.90	£ 8,526.81	£ 3,453.37	£ 4,727.99	£ 2,566.25	£ 2,150.84	£ 4,157.23	£ 4,731.71	£ 3,753.99	£ 2,481.59	£ 714.26	£ 5,488.45	49941.30	**3841.64**
Average classroom size	28.00	32.00	18.00	33.50	27.50	36.00	19.00	27.50	17.00	26.50	45.00	70.00	17.00	397.00	**30.54**
Ratio (no of trainees per trainer)	14	16	9	16.75	13.75	18	9.5	13.75	5.67	13.25	22.5	35	5.67	192.83	**14.83**

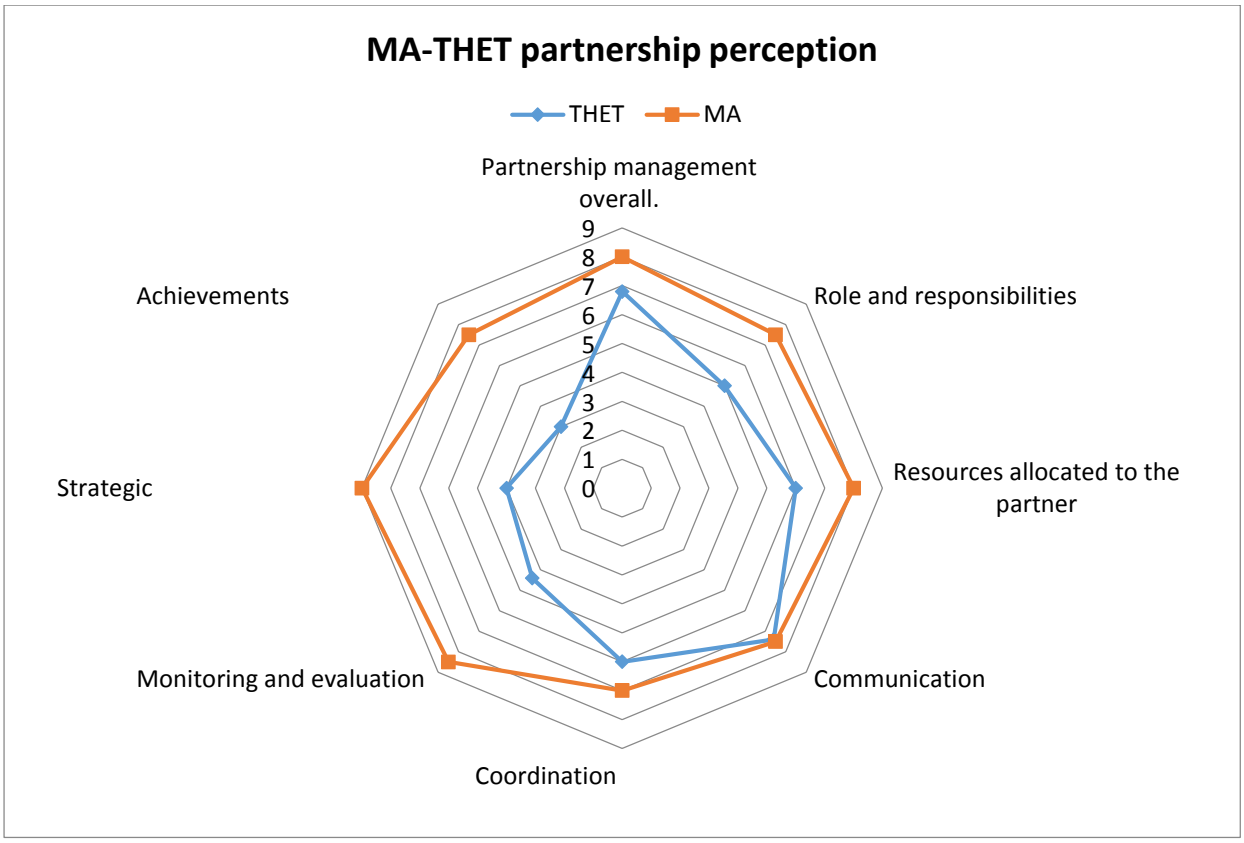
Annex 2.1

SUMMARY BUDGET				
Line Budget	**Year 3 (4 months)**	**Year 4**	**Year 5**	**Planned Year 6 (ongoing)**
MA platform development costs	£30,000	£112,000	£28,700	£47,600
Programme Manager (100 % Y1 and Y2, 50 % from Y3)	£13,282	£39,000	£19,500	£21,600
Other costs	£17,110	£7,000	£10,000	£10,800
Admin (8 % for Y1, 4 % for the remaining period)	£4,904	£6,320	£1,980	
Contingency (1.5%)	£906	£2,370	£742.50	
VAT	£13,240			
Un-allocated (charity grant)			£29,800.00	
TOTAL	**£79,443**	**£166,690**	**£90,723**	**£80,000**

Annex 2.2

MEDICINE AFRICA		IN-COUNTRY TRAINING	
INPUT (Oct 2014 - Sept 2015)		INPUT (Average for each trip in the period Oct 2014 - Sept 2015)	
Line Budget	**total**	**Line Budget**	**total**
Maintanance costs estimated escluding development costs. The cost is based on year 6 expenditure, there were no data provided in Year 5	£18,000.00	Direct in-country training costs for 1 trip include air ticket, accommodation, transport (UK and Somaliland), per diem, visa, insurance, vaccination, training costs in Somaliland. Average calculated among the 18 trips.	£4,855.46
Programme Manager (MA), part time	£20,550.00	Clinical lead (80%)	£512.00
Programme Manager (King's), 20 %	£6,183.99	King's Programme Manager (6 months - 45 %, 6 months - 30%)	£638.06
Other	£5,000.00	Office	£83.33
Admin	£990.00	Trips	£222.22
Contingency	£371.25	Admin	£138.75
Trip to Somaliland	£2,838.70	Contingency	£52.03
TOTAL	**£53,933.94**	**TOTAL**	**£6,501.85**
OUTPUT		**OUTPUT**	
Description	**total hours**	**Course**	**total hours**
Total hours attended by all the students during the 21 courses + total hours attended by all the students during the mentoring sessions.	1105.5	Average hours attended by all the students during each in-country training	1278.9
COST OF DELIVERING 1 HOUR OF TRAINING (input divided by output)	**48.79**	**COST OF DELIVERING 1 HOUR OF TRAINING (input divided by output)**	**5.08**

Annex 2.3


MA-THET partnership perception
THET
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Partnership management overall.
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Achievements
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Annex 4.1

YEAR 4		
Partner	**Allocated budget**	**Actual expenditure**
AMS	$ 45,000.00	$ 107,117.28
UOH	$ 45,000.00	$ 102,546.14
HIOHS	$ 43,158.00	$ 44,284.94
ANS	$ 43,158.00	$ 67,060.03
BIOHS	$ 43,158.00	$ 65,015.95
SIOHS	$ 43,158.00	$ 67,785.44

YEAR 5		
Partner	**Allocated budget**	**Actual expenditure**
AMS	$ 40,268.00	$ 62,293.15
UOH	$ 37,333.00	$ 44,865.74
HIOHS	$ 37,333.00	$ 44,865.74
ANS	$ 34,398.00	$ 45,803.01
BIOHS	$ 39,630.00	$ 45,803.01
SIOHS	$ 40,000.00	$ 48,976.51

YEAR 6		
Partner	**Allocated budget**	**Actual expenditure**
AMS	$ 46,200.00	
UOH	$ 60,877.68	
HIOHS	$ 37,316.00	
ANS	$ 34,283.00	
BIOHS	$ 41,890.00	
SIOHS	$ 42,120.00	

Annex 4.2

Nursing Institutions

Number of Graduates by Cadre and Per Year, from the 4 Nursing Institutions.																			
Cadre	2010		2011				2012			2013			2014				2015		TOTAL
	ANS	BIOHS	ANS	HIOHS	BIOHS	SIOHS	ANS	HIOHS	BIOHS	ANS	BIOHS	SIOHS	ANS	HIOHS	BIOHS	SIOHS	ANS	BIOHS	
BSc Nursing	16		26				24			26			34						126
Dip Nursing		23		111	40	34		51			31	16			76	31		47	460
PostBasic Midwifery				33					15		15				12				75
BSc. Midwifery																	8		8
Comm Midwives									20	19				20	23			35	117
CHWs															39				39
Lab technicians													29	24					53
TOTAL	39		244				110			107			288				90		878

Medical Institutions

Number of Medical Graduates, and Predicted Future Graduate Numbers, Per Year.															
Institution	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AMS	6	7	9	0	10	11	12	17	23	34	41	39	36	24	25
UOH	0	0	15	17	7	21	16	22	30	37	28	32	33	31	45
BU	0	0	0	0	0	0	0	0	0	0	0	11	23	19	21
Golis	0	0	0	0	0	0	0	0	0	36	45	34	0	0	0
TOTAL	6	7	24	17	17	32	28	39	53	107	114	116	92	74	91