

Scottish Government
Malawi Development Programme 2015-2018
End of Year Report – Part 1 of 3

This narrative report should be submitted together with your updated logframe and financial report.

PLEASE READ ATTACHED GUIDELINES BEFORE COMPLETING THE FORM

1. Basic Project Information		
Complete the information below for management purposes. Please indicate in the relevant section whether any changes to your basic project information (e.g. partners, geography, project dates or budget) have occurred during this reporting year. Explanations should be provided in section 3.		
1.1	Project Reference Number	M/15/H/005
1.2	Reporting Year	From: 01/04/2017 To: 31/03/2018
1.3	Project Year (e.g. Year 1)	Year 3
1.4	Name of Lead Organisation (Grant Holder)*	Meningitis Research Foundation
1.5	Name of Partner(s)*	Malawi Liverpool Wellcome Trust (MLW) Ministry of Health, Directorate of Preventive Health Services, Community Health Sciences Unit
1.6	Name of Project*	Triage and Treatment, Training and Engagement: A package for sustainable healthcare improvement in Malawi's primary health clinics.
1.7	Project Description*	<p>The project addresses Malawi's high infant mortality rate by working to ensure that children with meningitis and other life-threatening illnesses are more quickly and effectively diagnosed and prioritised for treatment. The project takes place at three levels: within communities, in primary health centres and at a policy level.</p> <p>In the community we raise awareness of the symptoms of meningitis and other serious illnesses, encouraging parents and guardians to seek medical advice for their children when they become aware of symptoms.</p> <p>In primary health centres, we have developed a system to prioritise and treat children with serious illnesses. We adapted the World Health Organisation's Emergency, Triage, Assessment and Treatment (ETAT) protocol into a digital algorithm on a mobile phone. We trained health workers in 11 Primary Health Centres capture key information from patients on the phone, which then automatically prioritises the sickest children for treatment. And we have implemented a package of effective treatment interventions in the health centres.</p> <p>At a policy level the project works towards Malawi's Ministry of Health effectively implementing the protocol across the country. A steering group chaired by the Ministry of Health oversees the project, ensuring its commitment.</p> <p>The Scottish Government (SG) has enabled this ground-breaking work by providing funding since 2012.</p>
1.8	Project Country/ Region*	Malawi
1.9	Project Start & End Date*	Start: 07/04/2015 End: 30/09/2018

1. Basic Project Information		
Complete the information below for management purposes. Please indicate in the relevant section whether any changes to your basic project information (e.g. partners, geography, project dates or budget) have occurred during this reporting year. Explanations should be provided in section 3.		
1.10	Total Project Budget*	£ 1,037,846
1.11	Total Funding from IDF*	£ 707,320
1.12	IDF Development Priorities Please tick the box next to the development priority/priorities that your block grant aims to address	<input checked="" type="checkbox"/> Health <input type="checkbox"/> Education <input type="checkbox"/> Civic Governance <input type="checkbox"/> Sustainable Economic Development <input type="checkbox"/> Renewable Energy
1.13	Supporting Documentation Check box to confirm key documents have been submitted with this report	Up-to-Date Logical Framework (LF) summarising progress against relevant milestones for project activities, outputs, outcomes and impact. <input checked="" type="checkbox"/>
		Please indicate (check box) if you have proposed amendments to your LF since your last report. If so, please detail any changes in Q3.2 <input checked="" type="checkbox"/>
		Please indicate (check box) if the LF submitted has been approved by the Scottish Government. <input type="checkbox"/>
		End of Year Financial Report <input checked="" type="checkbox"/>
	Proposed Revised Budget (if applicable) <input checked="" type="checkbox"/>	
	Please list any further supporting documentation that has been submitted	See Evidence List (01) ASPIRE population data (02) May 2018 MSAB Presentation Improving patient pathways to care (03) May 2018 ISAB Presentation Improving patient pathways to care (04) Qualitative data summary (05) Aspire descriptives (06) 21st college of Medicine Research Dissemination conference abstract (06) RDC Call for abstracts (06) RDC poster (07) Training numbers (08) Training manual cover (09) Health Centre Package Document (10) 4th PEAG meeting minutes (10) PEAG invitation (11) ASPIRE overview presented at ONS project Lilongwe (12) TWG Minutes November 2017 (13) Health economist Job Description (14) Patient Group Report (15) Radio activities report (16) Feedback loop diagram (20) 1707 MBC - Chipatala robot by MLW improving health service delivery (21) 1709 - New triage tool helps doctors save lives when resources are most limited _ EurekAlert! Science News (17) ASM abstract (17) ASM call for abstract (17) ASM presentation (18) EVGH abstract

1. Basic Project Information

Complete the information below for management purposes. Please indicate in the relevant section whether any changes to your basic project information (e.g. partners, geography, project dates or budget) have occurred during this reporting year. Explanations should be provided in section 3.

		(18) EVGH Call-for-Emerging-Voices-for-Global-Health-2018 (19) PACHA abstract call (19) PACHA Abstract Submission (19) PACHA poster	
1.14	Response to Previous Progress Reviews	Scottish Government's comments on previous reports:	Action taken since received:
		Mid-Year Report (Oct 2015) Specific query about international travel overspend.	MRF email 17/12/15 clarified that international travel falls within "other funds" within the whole project and therefore does not represent an overspend of Scottish Government allocated funds.
		Underspend Report (Jan 2016) Specific budget questions.	Clarified via face to face meeting (March 2016) with Scottish Government and subsequent email 7 March.
		Meeting (4 March 2016). A face to face meeting was held between MRF and SG to update on the project. Key issues discussed included possible COMREC costs, and project delays.	It was agreed that clarification on COMREC would be pursued by both MRF and SG where possible. It was also agreed that once Y1 was concluded and reviewed, discussions would resume whilst the project progresses.
		End of Year Report (April 2016). More evidence of beneficiary satisfaction and feedback was required.	We have included stronger evidence of feedback from beneficiaries, project team members and stakeholders in this report.
		Mid-Year Report and budget revision (2016). More gender disaggregation and inclusion of views from beneficiaries, implementers and stakeholders. Revised budget accepted.	We have included more gender disaggregation (training figures, data) and stronger evidence of feedback from beneficiaries, project team members and stakeholders in this report.
		Extension proposal to September 2018 was approved on 4 December 2017	MRF acknowledged and thanked the Scottish Government for their continued support to the project.
		Mid-Year Report (Oct 2017) Specific query about overspend on some budget lines	MRF email 04/01/17 clarified that these lines were covered within the overall project budget and therefore does not represent an overspend of Scottish Government allocated funds

1. Basic Project Information	
Complete the information below for management purposes. Please indicate in the relevant section whether any changes to your basic project information (e.g. partners, geography, project dates or budget) have occurred during this reporting year. Explanations should be provided in section 3.	
	<p>Y3 budget revision was approved by the Scottish Government on 3 April 2018</p> <p>Funding tranche correction confirmed by email from the Scottish Government on 26/03/2018. It was confirmed that the Schedule 2 submitted with this report will be adjusted by MRF to account for and correct the error.</p>
1.15	Date report produced
1.16	Name and position of person(s) who compiled this report
1.17	Main contact details for project, if changed

Signed by

[Redacted Signature]

Date 14 May 2018

Date: 14 May 2018

Designation on the Project: [Redacted], Meningitis Research Foundation

2. Project Relevance	
2.1	<p>Project Beneficiaries</p> <p>Does the project remain relevant to the context and the beneficiaries with whom you are working? Please justify this in a short paragraph below.</p> <p>Late presentation at health facilities is a driving factor for death from acute bacterial meningitis and other severe illnesses where prompt treatment is essential to effective management. Previous research identified barriers to identifying severe illness at primary health clinics (PHCs) and at community level. The project has evolved to respond to the needs of health centres and beneficiaries. The full ETAT package intervention was implemented following the initial triage component at PHCs to improve recognition of serious illness and prompt management through digital m-health technology. Mechanisms to ensure the project remains relevant to the context and beneficiaries have included continual and varied engagement with the national and district Ministry of Health, health workers in primary facilities and beneficiaries.</p> <p>The project remains relevant to the national context as demonstrated within the Malawi Health Sector Strategic Plan, released in July 2017, which referenced the need to improve equipment and supplies in health facilities, improve the use of data and increase use of digital processes. Semi-structured interviews with health centre staff and parents/ guardians have continued to demonstrate the relevance of the project.</p>
2.2	Gender and social inclusion

	<p>Please describe how your project has worked to ensure that women and girls, and other vulnerable groups (as appropriate) benefit from the project. Describe any challenges experienced in reaching vulnerable people and how these have been overcome.</p> <p>Primary ETAT prioritises vulnerable children, based on the severity of illness. Sex and age disaggregated data is collected and there are no trends to suggest that one gender is prioritised over another.</p> <p>Disaggregated data, monitoring the number of interactions with listeners in response to the radio broadcasts, indicated that more men than women were participating in the radio broadcasts. 37% of the messages and calls received were from women. This was a minimal improvement in comparison to the radio broadcasts in 2016 where 32% were received from women. The team highlighted that the reason for this might be that the timing of the broadcasts, which is at the time that families will be preparing their meal, and therefore women, who traditionally are responsible for this task, may not be able to interact. However, this does not necessarily mean that the broadcasts were not heard by women. Although it was not possible to adjust the time of the main radio broadcast, all programmes were rebroadcast on community radio stations and the broadcast time was adjusted to 3 or 5pm with the aim of improving inclusion of women.</p> <p>The inclusion of vulnerable groups has been considered in the design and adaptation of the project and adjustments have been made where necessary, for example, by providing phones with larger screens for health centre staff with visual impairments.</p>
2.3	<p>Accountability to stakeholders</p> <p>How does the project ensure that beneficiaries and wider stakeholders are engaged with and can provide feedback to the project? What influence has this had on the project? What challenges have been experienced in collecting and acting on beneficiary feedback?</p> <p>Engagement with stakeholders is at the core of the project to ensure effective delivery and sustainability. We have different mechanisms for engagement. The Primary ETAT Advisory Group (PEAG), which last convened in March 2018 and is chaired by the Ministry of Health, continues to lead the implementation of the project, with the scale up of Primary ETAT as the purpose. District Health Officer meetings, District Health Management Team meetings are vital to ensuring effective delivery and coordination with existing systems and processes. Health workers and support staff are given the opportunity to feed back on the project via structured feedback formed at the end of their training and via semi structured interviews. Beneficiaries have been given the opportunity to feed back on the project via semi structured interviews and this information has been used to adjust systems in specific health facilities.</p>

<p>3. Progress and Results</p> <p>This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.</p>	
3.1	<p>Changes to Project Status</p> <p>Has the focus or delivery of your project changed significantly over the last financial year? If so, please explain how and why, and attach copies of all relevant correspondence with the Scottish Government.</p> <p>A costed extension was approved by the Scottish Government on 4 December 2017. The new end date for the project is 30 September 2018.</p>
3.2	<p>Changes to the Logical Framework</p>

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

If changes have been made to the logframe since the previous financial year please describe these below. Please also provide evidence (e.g. copies of correspondence) that these changes have been agreed with the Scottish Government. If you would like to make changes to your logframe, but these have not yet been approved by the Scottish Government, please describe and justify in detail the requested changes below – and highlight the proposed changes in the revised logframe.

Result Area/ Indicator	Proposed/ Approved Change (please clarify and evidence below)	Reason for Change
Output indicator 1.1	Proposed change from: <ul style="list-style-type: none"> - “11 Health Centres implementing fully optimised Primary ETAT mHealth protocols for 927,500 children in Blantyre and 126,000 in Chikhwawa.” To - “11 Health Centres implementing fully optimised Primary ETAT mHealth protocols for a population of 795,654 (381,900 under 15) in Blantyre and 130,807 (62,787 under 15) in Chikhwawa.” 	The original targets incorrectly referred to the catchment population as the number of children in those target regions. We now have confirmed and up to date population figures of the catchment populations for all 11 health centres that the project supports. This suggested change reflects the new figures obtained and the correction to the indicator.
Outcome indicator 1	Proposed change from: <ul style="list-style-type: none"> - “MoH has secured the financial commitment for the effective implementation the primary ETAT package across Malawi” to - “Primary ETAT is effectively adopted and implemented by other agencies in Malawi with MoH support” 	This change reflects what is feasible to achieve by September 2018, recognising that achievement against these indicators has been through agencies working with the MoH such as ONSE and Kamuzu Central Hospital. Uptake of primary ETAT by the MoH remains the ultimate goal of the project and discussions and advocacy will continue beyond September 2018.
Output Indicator 3.4	Proposed change from: <ul style="list-style-type: none"> - “MoH has secured the financial commitment for the effective implementation the primary ETAT package across Malawi” to - “Primary ETAT is effectively adopted and implemented by other agencies in Malawi with MoH support” 	

3.3 Gaps in Monitoring Data

If baseline or monitoring information is not available, please provide an explanation below. Where monitoring data has been delayed (since previous report), please provide an indication of when and how it will be made available to the Scottish Government.

Monitoring data

Following the transfer of data from D-tree to MLW, as detailed in our mid-year report, a richer set of data is collected and analysed, including data relating to all indicators including output indicator 1.3 *Appropriate referrals made following primary health level triage and consultation outcomes*. This indicator is measured by the concordance of primary diagnoses with final diagnoses at tertiary level. It was noted in the last report that this data relating to all four data points would be available by this date, including in relation to this indicator, however, the team has experienced some challenges due to capacity and issues with the data network, affecting its ability to sync the large data set. Resolving these issues is a priority for the data department.

3.4 Project Outputs

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

In the table below, please list each of your project outputs, and provide further detail on your progress and results over this reporting period. Describe any delays or other challenges that you have experienced and how these have been addressed, and provide information about any unexpected results. Progress should be supported with evidence (such as links to monitoring data in line with logical framework, case studies, web-based information, reports etc) where possible.

Output 1: Triage and Treatment: Implementation of an optimised ETAT system for children in 11 Health Centres in southern Malawi

Output Indicator	Progress against Planned Milestone/ Target
<p>1.1 Number of health centres implementing mHealth decision tree and children triaged impacting on patient experience</p>	<p>Planned: 11 Health Centres implementing fully optimised Primary ETAT mHealth protocols for 927,500 children in Blantyre and 126,000 in Chikhwawa. Proposed change: “11 Health Centres implementing fully optimised Primary ETAT mHealth protocols for a population of 795,654 (381,900 under 15) in Blantyre and 130,807 (62,787 under 15) in Chikhwawa.”</p> <p>Progress: Achievement is dependent on requested indicator amendment.</p> <p>Narrative: 11 Health Centres implementing fully optimised Primary ETAT mHealth protocols for a population of 795,654 (381,900 under 15) in Blantyre and 130,807 (62,787 under 15) in Chikhwawa.</p> <p><i>“At Bangwe, we are now working together as a team. It is helping us manage the children so much better. We are seeing them far more quickly than before”.</i> Health care worker</p> <p>11 health facilities are implementing optimised Primary ETAT mHealth protocols. This full health centre package includes ETAT manuals, a minimum treatment package and m-Health technology. Over 400,000 cases have been triaged to date. The minimum treatment package was informed by the Clinical Assessment Evaluation Report recommendations. This has included the provision of separate stabilisation rooms for spaces in all clinics, the translation of the manual and algorithm to Chichewa and by providing phone with larger screens for health centre staff with visual impairments.</p> <p>Overall there are high levels of agreement between the first health worker's diagnosis and the clinician's assessment, with 81.4% of cases being concordant in terms of the priority given. There is variation between clinics with those with longer exposure to the ETAT system more likely to have a higher level of agreement.</p> <p>Data collection has included sessions with clinic management staff and semi-structured interviews with parents and guardians to discuss the changes since the implementation of fully optimised Primary ETAT.</p> <p>Health workers at Limbe Health Centre in Blantyre have noticed that team work and efficiency have improved. Prior to ETAT, they noted that there was no team</p>

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

		<p>work at Limbe health centres, because everyone was entirely responsible for their own work: <i>“In the past it was only the doctor treating the patients without the help of anyone; everyone focused on their own work.”</i> Another health worker at Limbe said in the follow up interviews: <i>“ETAT has encouraged team work. Guards, nurses, clinicians are working hand in hand triaging... work is now done faster than one person doing it all.”</i></p> <p>Parents and guardians have noticed reduced congestion at the health centre. Chileka health centre was previous congested due to adults and children queuing together: <i>“Before the introduction of ETAT, children were being mixed with adults and it was chaotic. You would find adults with TB standing with little children which pained me as children have weak immune systems already.”</i> <i>“With the coming of ETAT adults now have their own space as well as children which has helped ease congestion.”</i></p> <p>Evidence:</p> <ul style="list-style-type: none"> - (1) ASPIRE population data - (2) May 2018 MSAB Presentation Improving patient pathways to care - (3) May 2018 ISAB Presentation Improving patient pathways to care - (4) Qualitative data summary
<p>1.2 <i>Minimum Primary Health treatment package integrated into 11 health centres</i></p>		<p>Planned: Patients/guardians report an improvement in services at 11 Health Centres</p> <p>Progress: Achieved</p> <p>Narrative: Improvements felt by parent/ guardians at 11 Health Centres. Captured through semi structured interviews.</p> <p><i>“In the past even if you come with a child who is very sick your fellow carers could not give you a chance to go in front of a queue for your child to be helped immediately but now things have improved because when a child is very sick s/he is put in front of a queue.”</i> Carer</p> <p><i>“I am so thankful because of what has happened today. My baby was identified among others that he was an emergency and he was taken in front of the queue to be seen immediately by the clinician and he is now better.”</i> Carer</p> <p>The primary treatment package is an essential element of the project. This package was developed following an evaluation with input from health centre staff, Queen Elizabeth Central Hospital, the district health office for three key areas including human workforce, infrastructure and equipment and supplies.</p> <p>Due to systematic triage, emergency cases are now seen quicker. The mean waiting time for emergency cases is now 7.9 minutes, for priority cases the mean waiting time is 18.7 minutes and for those assigned the least urgent, the mean waiting time is 27.8 minutes. Parents and guardians have noticed that</p>

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

		<p>they now spend less time at the health centre. At Zingwangwa health centre in Blantyre parents noted that it took a long time for them to be seen by a doctor which led to their disappointment and preference to attend private clinics. <i>“At first we would spend the whole day with our sick children waiting to be seen by the doctor. It was very frustrating. In fact we preferred going to private clinics.”</i> <i>“These days we spend less time here. Last time actually my husband was surprised I got home in good time.”</i></p> <p>At Chikwawa, parents noted that before Primary ETAT, people did not understand the real importance of prioritising very sick children because they were used to their normal first come first served process. <i>“When this programme was first introduced, we did not understand what was going on and the importance of the rulers, there was confusion amongst us”</i>. Male, Chikwawa health centre. The project team has undertaken sensitisation activities with community leaders and health care workers to increase understanding of the new system and to avoid creating conflict. In addition, the support staff give health education talks each morning which includes a triage component. Chichewa EPQ posters are also seen in all facilities.</p> <p>At South Lunzu Health Centre in Blantyre, health workers noted that before ETAT was introduced at the clinic there were misunderstandings that arose amongst parents, amongst health workers or between parents and health workers. <i>“When you find a child vomiting and take him or her to the doctor there would be noise on the queue saying that one must have a relative, how come that one’s book has gone directly to the doctor. As a result, the doctors were also unwilling to help, thinking it’s your relative.”</i></p> <p>Evidence:</p> <ul style="list-style-type: none"> - (4) Qualitative data summary
	<p>1.3 <i>Appropriate referrals made following primary health level triage and consultation outcomes</i></p>	<p>Planned: Rate of appropriate referrals increased by 10% of baseline level</p> <p>Progress: Milestone progress to be determined following further data analysis</p> <p>Narrative: It is not yet possible to report on this indicator which is measured by the concordance of primary diagnoses with the final diagnoses at tertiary level due to issues within the MLW data department in syncing the data, affecting the timing of the analysis. However, complementary indicators demonstrate that implementing the full ETAT package at the Primary Health Centre level reduces burdens at tertiary level and improves clinical outcome, monitored through data collection at four points: from initial triage outcome at the PHC to final outcome at tertiary level.</p> <p>The burden on tertiary level health facilities has reduced due to improved stabilisation at primary clinics. Analysis of 155 emergency cases showed that 42% were stabilised and sent home. Previously, these children would have been referred to QECH, demonstrating the reduced burden on tertiary level health facilities.</p>

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

Makhwira health centre is located 40 kilometres away from Chikwawa district hospital. Before Primary ETAT, health workers at Makhwira health centre noted that patients were being referred to hospital with the knowledge that the patient may not make it to the referral centre because of the distance and poor road condition. *“At first we were just referring anyhow and with the distance it was taking a lot of time for a patient to get to Chikwawa district hospital”.* *“Right now there was less referrals because we are treating most children here.”* From April 2017 to March 2018, 286 emergency cases, 36,753 priority cases were triaged from a total of 158,941 cases and, of these, 777 were referred to QECH.

The project is seeking to reduce the number of unnecessary referrals by enabling stabilisation at primary level but to increase the proportion of those who are referred presenting at the hospital. The number of patients arriving at QECH after referral increased from 37% during the feasibility study to 52% after full ETAT implementation.

During an interview in March 2018 with Dr. [REDACTED], Paediatric Consultant based at QECH, she noted that the percentage of patients admitted at tertiary level has increased. She added that, whilst the number of patients admitted has remained relatively consistent, the total number of patients arriving at QECH emergency department has reduced, thus increasing the percentage of patients admitted. When explaining the trend, [REDACTED] noted that *“the population has not decreased – if anything, it’s gone up – but less serious cases are being dealt with elsewhere. Everything else has remained the same, the only change is the ASPIRE project.”*

Evidence:

- (5) Aspire descriptives
- (6) 21st college of Medicine Research Dissemination conference abstract, call and poster

Output 2: *Training: Translatable training manual and implementation toolkit developed and disseminated enabling Healthcare workers to provide full Primary ETAT for male and female children at 11 Health centres in southern Malawi*

2.1 Number of male and female Primary Healthcare staff trained in Primary ETAT across 11 Health Centres

Planned: 440 HCW (40% female) trained to implement full Primary ETAT in 11 Health centres

Progress: Achieved

Narrative: 522 primary healthcare staff had already been trained by the October 2017 milestone. 413 of these staff (66% of whom were female) attended refresher training in March - April 2018. The remainder will attend refresher training in May 2018.

During an interview with [REDACTED] in March 2018, she commented on the behaviour change amongst health workers. *“They have shifted – a sick child will arrive [at the PHC] and in the past they would not [treat them] or they*

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

		<p><i>would take them in their car to the hospital. Now, they have changed, they do something about it [by treating them at the PHC]. They have agency to make a change.</i></p> <p>Furthermore, the ASPIRE Project Coordinator noted improvement in the attitude of health workers. She noted that government health centre staff have in the past been motivated to attend trainings because they know they will receive monetary incentives. However, since the introduction of ETAT, people demonstrated ownership after realising the benefits. A staff member at Mfera health centre in Chikwawa said; <i>“People were more interested with incentives when they go for trainings but we are now realising that ETAT is bringing positive impact.”</i></p> <p>Evidence:</p> <ul style="list-style-type: none"> - (7) Training numbers
	<p><i>2.2 Primary ETAT training manual published and disseminated</i></p>	<p>Planned: Primary ETAT training manual published and disseminated, provided to MoH</p> <p>Progress: Ongoing</p> <p>Narrative: The Primary ETAT training manuals for health care workers and support staff are finalised and translated. A technical working group (TWG) meeting in May will finalise the manual for publication. The Primary ETAT training manuals have been used in initial and refresher trainings with health centre staff and have been adopted and used other departments and organisations such as the Kamuzu College of Nursing and as part of the scale up of ETAT in 16 districts in Malawi by The Organized Network of Services for Everyone’s (ONSE) Health Activity, funded by USAID.</p> <p>Evidence:</p> <ul style="list-style-type: none"> - (8) Training manual cover
	<p><i>2.3 Primary ETAT implementation toolkit published and disseminated</i></p>	<p>Planned: Primary ETAT management toolkit published and disseminated, provided to MoH</p> <p>Progress: Ongoing</p> <p>Narrative: The Health Centre Package (Primary ETAT implementation toolkit) has been strengthened throughout the project, to include recommendations, evidence and learning. An iteration of the package will be finalised at a TWG meeting in May and will be strengthened further with cost effective analysis by September 2018.</p> <p>Evidence:</p> <ul style="list-style-type: none"> - (9) Health Centre Package Document

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

Output 3 – Engagement: Primary ETAT recommendation report delivered to MoH outlining feasibility and next steps for implementing continued expansion of project, endorsed by PEAG, patient group, and other key stakeholders.

<p>3.1 <i>Primary ETAT advisory group (PEAG) is supported to consult on and advocate Primary ETAT package</i></p>	<p>Planned: Primary ETAT Working Group advocates Primary ETAT recommendation Report</p> <p>Progress: On track</p> <p>Narrative: PEAG The Primary ETAT Advisory Group held their fourth meeting on 2nd March 2018. This meeting was delayed to accommodate competing schedules. An additional PEAG has been scheduled for May 2018 to increase the communication and engagement of the group during the costed extension of the project. The meeting had wide attendance with action points focused on sensitisation and evidence.</p> <p>Four technical working group (TWG) meetings were conducted during the reporting period. The meetings are well attended with members present including MoH nurses and clinicians from Northern, Central and Southern Malawi, Training institutions, National ETAT trainers, Integrated Management of Childhood Illness (IMCI), World Health Organisation (WHO), and ARI/ETAT Office.</p> <p>Engagement with the The Organized Network of Services for Everyone's (ONSE) Health Activity, funded by USAID has been significant within this reporting period. ONSE has implemented Primary ETAT in 16 districts in Malawi with use of the training manuals developed through the ASPIRE project. Representatives of ONSE and USAID attended the PEAG meeting in March. A barrier highlighted by government and non-government representatives, including ONSE, was the need for evidence proving that the system is cost effective, particularly in relation to the m-health component, which ONSE have not included in their scaled Primary ETAT project. In response, the project team have improved the cost effectiveness analysis to include a component focused on comparing the effectiveness of the system with and without the mobile phones. This study will compare three facilities; Gateway, Mbayani and Makhetha to the 11 health facilities implementing Primary ETAT.</p> <p>Evidence:</p> <ul style="list-style-type: none"> - (10) 4th PEAG meeting minutes and invitation - (11) ASPIRE overview presented at ONSE project Lilongwe - (12) TWG Minutes November 2017 - (13) Health economist job description
---	---

<p>3.2 <i>Representative</i></p>	<p>Planned: 8 families supported by and actively involved in patient group, which</p>
----------------------------------	--

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

patient group is developed, supported and engaged.

endorses Primary ETAT recommendation report

Progress: Partially achieved

Narrative: 28 families are supported by and actively attend the monthly patient group. The group has primarily focussed on supporting patients and guardians to access healthcare services. Discussion has also included topics common to the participants such as Meningitis, severe illness and care of children with disabilities. Although discussion has sometimes extended to topics such as the need for Meningitis vaccines in Malawi, as well as how Primary ETAT is reducing delays to treatment, at this stage, the group have opted to focus on immediate needs of members in accessing care and support.

The quotations below demonstrate the priorities identified by the members and the initial impact this has had. We are committed to supporting the group to endorse Primary ETAT and other relevant advocacy once the immediate needs of the members are satisfied:

- *'This group has helped me, the research nurse helped us to meet with the clinician. ██████ is able to cope with his friends at school which he was failing to do. Now through this group linking us to care, he is receiving appropriate medication.'* Carer of ██████, who had meningitis at age two.
- *'My child was well until he was 2 years old when he had fever and convulsions. His mother took him to Chilomoni Health centre, where they referred him... At Queen Elizabeth Central Hospital, they took fluids from his back [Lumber Puncture]. After results, they told his mother that he is having meningitis. My child was given medication for Meningitis. After completing the treatment, we noticed that our child could not walk, [hear] or eat. He was referred to [the] physiotherapy clinic. Now, he is able to listen to voices when you call him. What I wish to get from this group is help to find a school where my child could be going as they refuse him in all normal schools.'* Carer

Initially, there were challenges with participants not consistently attending, due to commitments and challenges with travel. A travel contribution was introduced to assist those needing support and attendance has since improved. The group is now seeing members attend from further afield than Blantyre.

A Ministry of Health nurse has been participating in the monthly meetings to assist with the needs of the patients. It was noted that the change in personnel from month to month would not only affect the relationships participants are able to form with the nurse, but would also impact on the sustainability of the group. In light of this, the project team aims to meet with leadership at QECH in May to encourage consistent attendance by one nurse.

Evidence:

- (14) Patient Group Report

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

3.3 *Broadcasting of 8 new radio episodes about meningitis and sepsis to public in southern Malawi, to raise awareness and drive recruitment to patient group.*

Planned: 8 Episodes broadcast

Progress: Achieved

Narrative: 8 sessions were broadcast as planned as well as 2 additional broadcasts during Meningitis Awareness Week in April-May 2017.

The radio broadcasts have been a successful mechanism for raising awareness about meningitis but also for raising awareness about Primary ETAT and the patient group. In October 2017, as detailed in the attached evidence, four broadcasts covered themes such as the signs and symptoms of meningitis, case recognition, prevention and vaccinations, disability, personal testimonies, support services available, including the patient group and updates of research carried out by MLW. Panellists were varied and included those with personal experience of meningitis, MLW staff, the Blantyre District Health Officer, the Patient Group Coordinator and a patient group participant.

The greatest interaction, measured by the number of messages from listeners, was during the week involving a testimony from one of the parents whose child has an impairment as a result of experiencing meningitis. This suggests that personal experience encouraged more interaction with listeners.

The sample of questions below, all of which are responded to by experts, indicate that listeners increased their familiarity with the signs and symptoms of meningitis and demonstrated a desire to finding out more, for example by asking about how to prevent meningitis and who is typically affected. The comments also commended the work carried out by the project, demonstrating a demand for a scale up of the project.

- *"I know about the project ETAT and when it will be rolled out so that people from his area should also benefit?"*
- *"I have heard that it is only children suffer from meningitis and hence they get complications from the disease. However I know of some adults who also suffered from meningitis and have complications."*
- *"I have heard the message which the doctor has delivered, but here the problem is that we do not really know how the disease comes. Now that we have heard about the disease we wanted to ask; how can we prevent it?"*

Evidence:

- (15) Radio activities report

3.4 *Ministry of Health engagement with project and planning of ongoing rollout beyond 2018*

Planned: Quarterly reporting by MRF to MoH at national and district level, and sharing reporting with other key influencers

Progress: Achieved

Narrative: Monthly reports shared, relationship formed with new Blantyre District Health Officer and complementary Feedback Loop project initiated.

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

During the reporting period, monthly reports continued to be shared with relevant ministry of health staff at national and district level. The Blantyre District Health Officer was replaced during the reporting period and it was necessary to prioritise building a new relationship to ensure continued support to the project as well as the complementary Feedback Loop project, supported by complementary funding from the Irish Government.

Actions from the PEAG meeting held on 2 March 2018 demonstrate the commitment and engagement of key influencers in the project with an increased focus on dissemination of results and sensitisation, with activities led by the Ministry of Health. Of particular note, exemplifying the maintained commitment of the Ministry of Health is that [REDACTED], Deputy Director of Clinical Services, Ministry of Health Malawi participated in the PEAG in March. Changes within the Ministry of Health, including the movement of [REDACTED] [REDACTED], [REDACTED] Manager to the clinical department led by [REDACTED], will support advocacy efforts over the coming months.

Evidence:

- (16) Feedback loop diagram
- (10) 4th PEAG meeting minutes

3.5 Project Outcomes
 In the table below, please list your project outcome, and provide further detail on your progress and results over this reporting period. Please describe any delays or other challenges that you have experienced and how these have been addressed, and provide information about any unexpected results. Progress should be supported with evidence (such as links to monitoring data, case studies, web-based information, reports etc.) where possible.

Outcome: *Triage, treatment and training package fully optimised for primary health clinics, acceptable to Ministry of Health, benefiting sick children in primary clinics where it is used*

Outcome Indicator	Progress against Planned Milestone/ Target
-------------------	--

<p>1 Level of Ministry of Health commitment to final ETAT package</p>	<p>Planned: Optimised locally-owned Primary ETAT package adopted by MoH</p> <p>Progress: Ongoing (please see requested change to indicator).</p> <p>Narrative: As reported in October 2017, explicit reference to the adoption of ETAT was not included in Malawi's five year Health Sector Strategic Plan (HSSP) as anticipated and suggested at the April 2017 PEAG. It was explained that government departments needed to retain neutrality and could not align themselves to particular projects despite the alignment of ETAT to key strategic priorities outlined within the HSSP including improving equipment and supplies in health facilities, improving the use of data and an increased use of digital processes.</p> <p>Although not attributable to ASPIRE, the very significant scale of the ONSP project is positive and the adoption of training manuals developed by the ASPIRE project is a significant achievement. As previously mentioned, proving</p>
---	---

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

		<p>that the system is cost effective, is now vital for the extension period of this project and cost effectiveness analysis is a key part of this. Furthermore, the project team are in discussion with the Kamuzu Central Hospital in relation to the adoption of the mHealth component of Primary ETAT for their Pachimake project.</p> <p>Evidence:</p> <ul style="list-style-type: none"> - (10) 4th PEAG meeting minutes - (13) Health economist Job Description 				
	<p>2 Number of children by age and gender triaged in participating clinics and monitored through Primary mHealth ETAT system</p>	<p>Planned: Average number of children monitored (% female) through Primary mHealth ETAT pathway increased to 13,200 per month</p> <p>Progress: Slightly below target</p> <p>Narrative: The average number of cases monitored through Primary mHealth ETAT pathway increased to 13,025 in 2017/18 (50.3% of cases were female). This figure is slightly below target due to some challenges with data synching, meaning that some data was not logged, despite the triage being done. We expect this to increase once the challenges are resolved.</p> <p>Evidence:</p> <ul style="list-style-type: none"> - (05) Aspire descriptives 				
<p>3.6</p>	<p>Project Impact</p> <p>In the table below, please list each of your project outcomes, and provide further detail on your progress and results over this reporting period. Please describe any delays or other challenges that you have experienced and how these have been addressed, and provide information about any unexpected results. Progress should be supported with evidence (such as links to monitoring data, case studies, web-based information, reports etc) where possible.</p> <p>Project Impact: <i>Improved primary healthcare for children with severe illness, including meningitis, to reduce child mortality in Malawi.</i></p> <table border="1" data-bbox="204 1496 1466 2020"> <thead> <tr> <th data-bbox="204 1496 488 1536">Impact Indicator</th> <th data-bbox="488 1496 1466 1536">Progress against Planned Milestone/ Target</th> </tr> </thead> <tbody> <tr> <td data-bbox="204 1536 488 2020"> <p>1 Infant and child mortality rates (rates per 1000 live births)</p> </td> <td data-bbox="488 1536 1466 2020"> <p>Updated mortality rates will be available at the end of the project.</p> <p>It was perceived by parents and guardians that there were high numbers of deaths before ETAT was implemented. A parent at Mpemba health centre said “[There were] high numbers of deaths [with the] first come first served basis and it used to happen that the one who is seriously sick is at the back of the queue and this led to other children dying whilst in the queue.” Another parent noted “Ever since the introduction of the chipatala robots children’s deaths have been reduced. I have not heard that a child has died whilst in the queue”.</p> <p>“Ever since ETAT started. I have never heard any news that a child died in the queue [waiting for] the doctors room.” Health care worker</p> </td> </tr> </tbody> </table>		Impact Indicator	Progress against Planned Milestone/ Target	<p>1 Infant and child mortality rates (rates per 1000 live births)</p>	<p>Updated mortality rates will be available at the end of the project.</p> <p>It was perceived by parents and guardians that there were high numbers of deaths before ETAT was implemented. A parent at Mpemba health centre said “[There were] high numbers of deaths [with the] first come first served basis and it used to happen that the one who is seriously sick is at the back of the queue and this led to other children dying whilst in the queue.” Another parent noted “Ever since the introduction of the chipatala robots children’s deaths have been reduced. I have not heard that a child has died whilst in the queue”.</p> <p>“Ever since ETAT started. I have never heard any news that a child died in the queue [waiting for] the doctors room.” Health care worker</p>
Impact Indicator	Progress against Planned Milestone/ Target					
<p>1 Infant and child mortality rates (rates per 1000 live births)</p>	<p>Updated mortality rates will be available at the end of the project.</p> <p>It was perceived by parents and guardians that there were high numbers of deaths before ETAT was implemented. A parent at Mpemba health centre said “[There were] high numbers of deaths [with the] first come first served basis and it used to happen that the one who is seriously sick is at the back of the queue and this led to other children dying whilst in the queue.” Another parent noted “Ever since the introduction of the chipatala robots children’s deaths have been reduced. I have not heard that a child has died whilst in the queue”.</p> <p>“Ever since ETAT started. I have never heard any news that a child died in the queue [waiting for] the doctors room.” Health care worker</p>					

3. Progress and Results

This narrative report on project performance and results will be reviewed together with your revised and updated Logical Framework (or if not yet approved your original Logical Framework). See Guidelines (Annex 1) for details.

3.7	Risk Management			
	If progress towards delivering activities and outcomes is slower than planned or there have been delays in the delivery of the project, please explain: a) What the issues have been and whether they were highlighted on your risk register? b) What actions have been taken in response to these issues?			
	Issue/ Risk	On risk register?	Action Taken	Outcome
	High staff turnover	Y	518 health care workers of all cadres have been trained, with refresher training provided in March – May 2018. Task shifting addressing human resource issues has been introduced using monitoring charts and consistent triage by support staff using digital algorithm.	Consistent triage numbers in most clinics
	Patients referred do not reach hospital (59% unsuccessful referrals)	Y	Further research to understand and address referral dropouts. Provision of early warning system for emergency referrals to tertiary care. Feedback loops to report outcome of referrals back to clinics and link to district level aggregated data reporting. Provision of emergency supplies/ equipment at primary health centre level. Training of HCW in management of emergency cases through ETAT simulation course.	To be determined
	Challenges with rural data networks causing challenges with data collection on triage phones	Y	Introduction of network boosters within some clinics after negotiation with the GSM networks	To be determined
System is not taken on by Ministry of Health	Y	Quality assurance for scale up – refining the evidence base Cost effectiveness analysis evidence for the full health centre package Develop basic M&E system linking mHealth to District Health Information System (DHIS2)	To be determined	
Please add additional issues as required				

4. Sustainability

4.1	Partnerships		
	Provide a brief description of the roles and responsibilities of all partners, including in M&E. Have roles and responsibilities changed or evolved? Please provide a brief assessment of your partnership, including its strengths, areas for improvement and how this will be addressed. This section should be completed by lead partners based in Scotland and Malawi.		
Meningitis Research Foundation, Edinburgh: oversight (jointly with MLW); Financial management and fundraising support; dissemination of insights and learning; Project design, development and			

	<p>management; coordination of delivery partners and reporting to funders.</p> <p>Malawi Liverpool Wellcome Trust, Blantyre: oversight (jointly with MRF); data support and analysis; advice on project development and design including M&E; advice on health radio programming; technical advice and support on Primary Health Centre and community components; facilitation of in-country funds.</p> <p>Ministry of Health Preventive Health Services; ETAT Programme Manager and District Health Office Blantyre, Chikhwawa: Government support and directive; Provision of clinic supplies for triage treatment and to complement triage system; Mobilisation and preparation for establishing project protocols at rural Primary Health Centres.</p> <p>D-tree International, Lilongwe: Updating triage system phone applications; Development of rural Primary Health Centre software systems; Training, support and maintenance of technology; Database management.</p> <p>Roles remain broadly the same but there have been two changes:</p> <ol style="list-style-type: none"> 1. D-tree International's role. With the transferral of ownership for data management from D-tree International to MLW to improve efficiency and move to local ownership of data, D-tree's roll has ceased as the primary delivery partner on 1 July 2017. 2. MRF UK Project Management: Whilst the MRF Project Manager was on long term sick leave, the grant and project management responsibilities were assumed by the Bristol office.
4.2	<p>Exit Strategy</p> <p>Describe the key components of your exit strategy and outline progress towards achieving it. Provide any other achievements or progress towards ensuring that your project remains sustainable in the longer term (including in relation to local ownership and capacity, and resourcing). Describe any challenges and how these will be addressed.</p> <p>The project focus remains the development of a package for sustainable healthcare improvement in clinics, which can be adopted and owned by the Malawi Ministry of Health. The exit strategy is fundamental to the remaining project period with increased efforts to focus on dissemination of evidence and advocacy in the final six months of the project, led by the PEAG.</p> <p>During interviews with health centre staff, it was noted that there has been change in the ownership and sustainability of the intervention. A health worker said that <i>“When ETAT was first introduced, we did not take it seriously. Most people took it as something owned by [Malawi Liverpool] Wellcome Trust. We did not pay much attention to it.”</i> Perceptions of the system have now changed <i>“Even if the project ends we will continue to triage, and even on the weekends we triage despite not having resources, showing that people own it.”</i></p> <p>When challenges with mobile phones are faced, the MRF team has observed that trained HCW continue to triage manually using their detailed knowledge of the algorithms and system.</p>

<p>5. Learning and Dissemination</p>	
5.1	<p>Lessons Learned</p> <p>Describe briefly any lessons learned during this reporting period, and how it will influence the project and your work moving forward.</p> <p>Key lessons learned within the reporting period have included the following:</p> <p>It was noted that trained health centre staff were carrying out the triage process without the mobile</p>

5.	<p>Learning and Dissemination</p> <p>phone application on several occasions. The staff were confident in this process and noted this as a success of the intervention that they could continue this process independently. To assess the accuracy of the triage outcomes, an additional component has been added to the cost effectiveness analysis to compare the outcomes of those using and those not using the mHealth component. Learning from this additional research will form a useful case for others implementing Primary ETAT.</p> <p>The Health Centre Advisory Committee, representative of the community including the chief, counsellor, church representatives and women are responsible for ensuring the security of the rooms where equipment provided by the project is kept. The HAC members have ensured this through the mobilisation of funds for items such as burglar bars to ensure the security of the equipment.</p> <p>During an interview in March 2018 with Dr. ██████████, Paediatric Consultant based at QECH, she noted that the percentage of patients admitted at tertiary level has increased. She added that, whilst the number of patients admitted has remained relatively consistent, the total number of patients arriving at QECH emergency department has reduced; thus increasing the percentage of patients admitted. When explaining the trend, ██████████ noted that <i>“the population has not decreased – if anything, it’s gone up – but less serious cases are being dealt with elsewhere. Everything else has remained the same, the only change is the ASPIRE project.”</i></p>
5.2	<p>Innovation and Best Practice</p> <p>Summarise briefly any examples of innovations/ innovative approaches or best practice demonstrated by your project during this reporting period. Please explain why these are innovative or best practice, and detail any plans to share these with others.</p> <p>The project continues to demonstrate innovation and best practice through the adaptation of the WHO triage protocol from tertiary to primary setting, its use of mHealth and the data it provides at four data points of a patient’s pathway as well as through the use of data and learning. Of particular note, during the last year, the feedback loop project was developed (see co-finance and leverage) to respond to an identified issue.</p>
5.3	<p>Dissemination</p> <p>Summarise briefly your efforts to communicate project lessons and approaches to others (e.g. local and national stakeholders in Scotland and Malawi, academic peers etc). Please provide links to any learning outputs.</p> <p>A wide variety of audiences have been targeted with dissemination efforts during the reporting period via presentations, abstract submissions, media coverage and wider dissemination.</p> <p>Media coverage has included the following:</p> <ul style="list-style-type: none"> - Mbc.mw: Chipatala robot by MLW improving health service delivery [5 July 2017] - University of Virginia: New triage tool helps doctors save lives when resources are most limited [28 September 2017] <p>Presentations:</p> <ul style="list-style-type: none"> - The Malawi Scotland Partnership (MaSP) Symposium in Lilongwe in March 2018 proved a useful forum for sharing learning with others. A short video was prepared for the event. - A presentation of the outcomes and learnings of ASPIRE was shared with ONSE to inform their implementation of Primary ETAT in 16 districts in Malawi [November 2017]. <p>Abstracts have been submitted to the following conferences:</p> <ul style="list-style-type: none"> - ISAB and MSAB meetings at MLW May 2018: Improving patient pathways to care through implementation and optimisation of primary ETAT package. Successful. - MLW annual scientific meeting: Establishing an integrated clinical and behavioural

5. Learning and Dissemination	
	<p>surveillance system to track patients from presentation at primary through to tertiary outcome [July 2017]. Successful.</p> <ul style="list-style-type: none"> - The Fifth Global Health Symposium on Health Systems Research: Establishing an integrated clinical and behavioural surveillance system to track patients from presentation at primary clinics through to tertiary level facility outcome in Malawi [March 2018]. Successful for poster presentation in October 2018. - Paediatric and Child Health Association (PACHA) of Malawi, First Annual PACHA Conference: Using a Multidisciplinary Team Approach to Improve Child Health Outcomes throughout Malawi: Developing a package of community-targeted interventions to improve patient pathways in response to severe illness in children [September 2017]. Successful. - University of Malawi College of Medicine 21st Research Dissemination Conference: A157 – Establishing an integrated clinical and behavioural surveillance system to track patients from presentation at primary through to tertiary outcome [November 2017]. Successful. <p>Evidence:</p> <ul style="list-style-type: none"> - (02) May 2018 MSAB Presentation Improving patient pathways to care - (03) May 2018 ISAB Presentation Improving patient pathways to care (17) ASM abstract - (17) ASM abstract, call and presentation - (18) EVGH abstract and call - (19) PACHA abstract, call and presentation - (20) 1707 MBC - Chipatala robot by MLW improving health service delivery - (21) 1709 - New triage tool helps doctors save lives when resources are most limited _ EurekAlert! Science News
5.4	<p>Wider Influence Briefly describe any intended or unintended influence on development outcomes beyond your project. For example influence on local and national policy, contribution to debate on key development issues, uptake by other projects etc.</p> <p>Through coordination of the project via the PEAG and leadership of key individuals within the Ministry of Health including Mr [REDACTED] and Dr [REDACTED], the project has maintained a high level of visibility, particularly through the recent participation of the Deputy Director of Clinical services.</p> <p>In addition to engagement with the MoH, the project team has actively involved the WHO and USAID during the reporting period. The adoption of elements developed by the project including the training manuals within the USAID funded ONSE project and the possibility of the adoption of the mHealth component by Kamuzu Central Hospital for their Pachimake project are significant achievements.</p>

6. Financial Report	
<p>The narrative report below should be provided in conjunction with the Budget Spreadsheet report (see Annex 2). Please fill in the Budget Spreadsheet to: (a) confirm actual spend for the year and justify any significant disparities between programmed expenditure and actual expenditure within the financial year, (b) detail programmed spend for next year.</p> <p>Please note that any carry-over of funds to the next financial year should have been agreed with the Scottish Government by January 31st of the current financial year.</p>	
6.1	<p>Project Underspend Please note whether the project has reported a significant underspend, and whether the Scottish Government has agreed to this being carried forward. If this has been agreed, please provide copies of or links to relevant correspondence. Please indicate whether the underspend is the result of</p>

	currency fluctuations or other issues with project delivery.
	N/A
6.2	<p>Cost Effectiveness and Efficiency</p> <p>Please detail any efforts by the project to reduce project costs, whilst maintaining the quality of the project – for example through managing projects costs, efficient resourcing, working with and learning from others etc.</p>
	<p>During the reporting period, MRF and LSTM/MLW carried out a budget revision to ensure the best use of resources and maximum impact. The Year 3 budget revision was approved by the Scottish Government on 3 April 2018 and the Year 4 budget revision has been submitted with this report, as agreed with the Scottish Government in March. The process involved reallocation of cost savings and prioritisation of activities for maximum impact for the final six months of the project.</p>
6.2	<p>Co-finance and Leverage</p> <p>Please provide details of any co-finance or leverage that has been obtained for the project during the reporting period, including how the funds/ resources will contribute to delivering more and/or better development outcomes.</p>
	<p>Complementary funding was awarded from Irish Aid to support and complement the work carried out within this project. As reported in April 2017, a proposal was submitted to improve primary clinic management and staff productivity, amongst other activities, to strengthen the evidence base to present to the Ministry of Health. Although the full proposal was not approved, one component - the establishment of feedback loops between primary and tertiary levels of the health system - was approved and began in January 2018. Data produced by the ASPIRE project showed that just 41% of those referred to hospital present and, for those that do, the Primary Health Facility does not always receive feedback about the outcome of the case. The Primary Health Facility receive aggregated patient outcome data, however, there is no formalised system to share detailed case information to use for learning. This additional project component aims to establish the feedback mechanism for this purpose whereby the DHO and PHC will routinely receive performance and data trends, and meetings to utilise this information will be facilitated. Alongside this, a 'feed forward' mechanism will make the referral hospital aware of an incoming case to enable them to prepare.</p> <p>MRF continue to fulfil their match fund commitment to the project both by the provision of additional funds for project delivery, sub-granted to LSTM, and by funding project staff in Scotland and Bristol to support with project monitoring, financial monitoring, reporting and grant management.</p>

7. IDF Programme Monitoring				
The list of IDF programme indicators are listed below. With reference to Q46 on your application form, please report on progress for the IDF programme indicators that you have committed to tracking in your original proposal, including the 'Poverty and Vulnerability Indicators', which are obligatory for all Scottish Government funded projects.				
1. IDF Programme – Poverty and Vulnerability (compulsory)				
Indicator 1.1 Total number of people <u>directly</u> benefitting from the project				
Baseline	Female	Male	Total	Brief description (e.g. small-holders)
7,600 cases (50% female) triaged per month across 8 Primary health clinics offering basic ETAT	6,544 cases per month	6,481 cases per month	13,025 cases per month	Numbers of children triaged per month across 11 Primary health clinics offering optimised ETAT services in Blantyre and Chikwawa.

7. IDF Programme Monitoring

The list of IDF programme indicators are listed below. With reference to Q46 on your application form, please report on progress for the IDF programme indicators that you have committed to tracking in your original proposal, including the 'Poverty and Vulnerability Indicators', which are obligatory for all Scottish Government funded projects.

services in Blantyre and Chikwawa.				
------------------------------------	--	--	--	--

State the evidence that supports the progress described

Indicator 1.2 Total number of people indirectly benefitting from the project

Baseline	Female	Male	Total	Brief description (e.g. small-holders)
198 Primary level healthcare workers in Blantyre and Chikwawa Districts.	79 (40%) HCW trained in basic ETAT.	119 (60%) HCW trained in basic ETAT.	198 HCW trained in basic ETAT and mHealth system.	Primary level healthcare workers in 8 clinics in Blantyre and Chikwawa trained in basic ETAT and mHealth system

Progress:

522 primary level health care workers	344 (66%)	178 (34%)	522	Primary level healthcare workers and support staff in 11 clinics in Blantyre and Chikwawa trained in optimised ETAT and mHealth system.
---------------------------------------	-----------	-----------	-----	---

State the evidence that supports the progress described

2. IDF Programme – Health (optional)

Indicator 4.1 Number of health professionals with up-to-date skills, knowledge and qualifications in essential healthcare **SEE INDICATOR 1.2**

Baseline	Female	Male	Total	Brief description (e.g. nurses)

State the evidence that supports the progress described

Indicator 4.4 Number of people directly reached by improved essential health services **SEE INDICATOR 1.1**

Baseline	Adult Female	Adult Male	Child Female (< 18 yrs)	Child Male (< 18 yrs)	Total	Brief description (e.g. malaria)

State the evidence that supports the progress described

Indicator 4.5 Number of people who have access to improved essential health services

Baseline	Adult Female	Adult Male	Child Female (< 18 yrs)	Child Male (< 18 yrs)	Total	Brief description (e.g. maternal health)
743,500 people in Blantyre and Chikwawa had access to primary health clinics offering basic , rather	23% 213,086	23% 213,086	27% 250,144	27% 250,144	926,461	Catchment population of health centres offering optimised , rather than basic, ETAT services in Blantyre and Chikwawa districts (note that services are available for children).

7. IDF Programme Monitoring

The list of IDF programme indicators are listed below. With reference to Q46 on your application form, please report on progress for the IDF programme indicators that you have committed to tracking in your original proposal, including the 'Poverty and Vulnerability Indicators', which are obligatory for all Scottish Government funded projects.

than optimised, ETAT services						
-------------------------------	--	--	--	--	--	--

State the evidence that supports the progress described

ASPIRE population data

Indicator 4.6 Number of institutions with improved essential health services

Baseline	Total	Brief description (e.g. district clinic)
8 Primary Health facilities implementing the basic, rather than optimised, ETAT system, following previous phase of project.	11 Primary Health facilities have implemented the optimised ETAT system	

State the evidence that supports the progress described