JI-MNCH

FINAL REPORT 2010-2012

Joint-Initiative on Maternal, Newborn and Child Health

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Acknowledgements and Disclaimer

We would like to thank Australia, Norway and the United Kingdom for their kind contributions to improving maternal, newborn and child health among some of the poorest and hardest-to-reach communities in Myanmar's Ayeyarwady Delta, especially those worst hit by Cyclone Nargis in 2008. Their support to the Joint Initiative on Maternal, Newborn and Child Health is gratefully acknowledged.

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Photography: Christopher Davy

Acronyms

AMW	Auxiliary Midwife
BHS	Basic Health Staff
CHW	Community Health Worker
CTHP	Coordinated Township Health Plan
DOH	Department of Health
ECC	Emergency Child Care
EmOC	Emergency Obstetric Care
EPI	Expanded Programme of Immunization
HMIS	Health Management Information System
INGO	International Non-Governmental Organization
IOM	International Organisation for Migration
IP	Implementing Partner
JICA	Japan International Cooperation Agency
JI-MNCH	Joint Initiative on Maternal, Newborn and Child Health
LSCS	Lower Segment Caesarean Section
MSI	Marie Stopes International
MCH	Maternal and Child Health
MOH	Ministry of Health
MUAC	Mid-upper Arm Circumference
MRCS	Myanmar Red Cross Society
NGO	Non-Governmental Organisation
ORS	Oral Rehydration Solution
PONREPP	Post Nargis Recovery and Preparedness Plan
RHC	Rural Health Centre
RI	Relief International
SRHC	Sub-rural Health Centre
TBA	Traditional Birth Attendant
VFB	Village Food Bank
VHC	Village Health Committee
VHW	Voluntary Health Worker
VTHC	Village Tract Health Committee

Contents

1. Executive Summary

When the Joint Initiative on Maternal, Newborn and Child Health (JI-MNCH) started in 2010 its collaborative approach to the delivery of essential health care services was untested in Myanmar. Over the three-year grant period, ending in December 2012, the programme gradually expanded to six project townships in the Ayeyarwady Delta and successfully met its commitment to the health service needs of targeted poor and hard-to-reach populations.

By the end of December 2012, a total of 37,635 women received antenatal care from midwives, up from 20,451 women in 2010. Skilled birth attendance increased dramatically from 4836 births in 2010 to 19,084 births in 2012, and totalled 33,647 over the three years. The 2012 figure alone was 108% of the target and 62% of the year's estimated number of live births in project areas. Of the deliveries in 2012, 4616 were attended by Auxiliary Midwives, more than double the 1736 deliveries recorded in 2010.

Such gains in antenatal care and skilled birth attendance would not have been possible without efforts to expand the coverage and quality of outreach support for midwives and training of new Auxiliary Midwives and Community Health Workers. From 2010 to 2012, midwives made a total of 17,015 outreach visits to provide services such as antenatal and postnatal care, immunizations and health education. A total of 3676 visits were made to hard-to-reach villages although the number of such villages changed yearly. The importance given to hard-to-reach villages and populations was especially evident with 96% achievement of the 2012 target. Achievement for outreach villages in 2012 was 79%.

The results show that transportation support for midwives and Basic Health Staff removed one of the major barriers to improving outreach coverage in project townships. However, the increase in coverage was just one part of improving access to essential services in communities. Since outreach visits are often provided on a strict time schedule owing to the long travel times associated with boat travel in the Delta, the programme emphasised capacity development for existing Auxiliary Midwives and Community Health Workers stationed 24/7 in villages. The programme also expanded the number of villages with such health workers by training new ones. From 2010 to 2012 a total of 836 new Community Health Workers and 504 new Auxiliary Midwives were trained with programme support, increasing village coverage from 43 to 63 per cent and 28 to 39 per cent respectively.

The Population-based Maternal and Child Health Survey conducted in 2012 acknowledged the improvement in coverage but noted that only 42% of the women received full antenatal care of at least four visits or more. As a result, quality of care was prioritised, particularly in hard-to-reach villages, and by December 2012 coverage in such villages was 84% for Community Health Workers and 54% for Auxiliary Midwives. Only 7% of hard-to-reach villages were not covered by a Community Health Worker or Auxiliary Midwife at the end of 2012. Despite these improvements, hard-to-reach areas and populations would still benefit from more midwife visits.

Supporting health workers through the coordination mechanism was key to the sustainability of the programme and improving service deliv-

Right: Khin Yu and her two-day old son at Sein Ban Sub-rural Health Centre. Khin Yu was advised by her local midwife to deliver at the health centre rather than her village.

ery through feedback and continuous training. Regular meetings were held between Basic Health Staff, Implementing Partners, health workers, township health staff and community groups. The participation of other health stakeholders such as non-contracted INGOs working in the same geographic locations also increased as the programme developed, suggesting that meetings were recognised as a valuable forum. Attendance by Voluntary Health Workers at coordination meetings varied considerably by project area with higher average attendance observed in newer project townships.

In addition to regular coordination meetings at the township level, an emergency referral system was established in all project townships focused on providing Emergency Obstetric Care (EmOC) and Early Childhood Care (ECC). Over the grant period, a total of 10,039 emergency referrals were made to hospitals. In 2012, 80% of these referrals were from poor and hard-to-reach populations and 5% were from hard-to-reach villages. Of total referred cases, 99.7% of EmOC, 98.6% of ECC cases and 96.5% of other cases survived with an overall survival rate of 99% over the grant period. However, disparities were found across project areas in the type of referrals made with a bias towards referrals from health centres with better access to township hospitals.

Prolonged or obstructed labour was the common most cause of EmOC referral. Pregnancy induced hypertension, post-partum haemorrhage and pre-eclampsia/eclampsia were the most common causes of maternal death. The most common cause of ECC referral was pneumonia/acute respiratory infection and the main causes of death in communities were pneumonia, febrile fits, beriberi and neonatal emergencies. It was found through reporting and follow-up that some common causes of emergency had fewer hospital referrals than other causes but this issue was highlighted to improve emergency referrals.

Follow-up of maternal and child deaths increased and in 2012. Of maternal deaths, 58 out of 66 were investigated and for child deaths this was 330 out of 730, which represents 49% of the total reported deaths. Significant gains remain to be made though, particularly in investigating child deaths. Follow-up data revealed that while availability of essential health services and emergency health care referral undoubtedly widened in project areas, this did not guarantee utilisation of such services. For example, in the case of 73% of reported child deaths, no treatment by a health care professional was received. Although the proportion of births attended by Traditional Birth Attendants declined over the grant period, in 2012 at least 65% of the 58 maternal deaths investigated were attended by Traditional Birth Attendants. In 25% of cases, no antenatal care was provided.

Efforts to improve the quality of unskilled birth attendance were undertaken. A total of 1055 Traditional Birth Attendants received training in “dos and don’ts” and for live births registered officially with Basic Health Staff (estimated to be about three quarters of all births), the use of Traditional Birth Attendants declined from 35% in 2010 to 18.5% in 2012.

With emergency referral systems now established more attention should be given to reducing barriers to health care access that do not result from service coverage. Particular attention should be given to overcoming delays in the decision to seek care, which relates to poverty and awareness of danger signs and the emergency referral system by community members and unskilled health care providers. Referral guidelines and the financial risk posed to families by use of EmOC and ECC support should also be reviewed since hidden costs associated with hospital care that cannot be reimbursed by Implementing Partners may constitute a significant financial barrier and hence disincentive to people in need of referral support.

Health committees at the village tract and village levels played an increasingly important role in community health initiatives, assessments and fund management for emergency referrals. A total of 1590 Village Health Committees and 190 Village Tract Health Committees were formed or revitalised during the grant period, a collective achievement rate of 95%. In four townships, Village Health Committees were formed or revitalised in all villages. However, trust funds were established in only 30% of Village Tract Health Committees and 45% of Village Health Committees.

Targets more than doubled in 2012 for joint supervision but achievement remained constant at above 75% with over 200 visits in 2012 alone.

Despite a review of the nutrition component last year, progress to initiate activities was limited. The National Nutrition Centre provided training support on infant young child feeding and exclusive breast-feeding. Training was also provided for Hospital Nutrition Units.
The JI-MNCH programme strengthened nutrition surveillance and rehabilitation activities. Voluntary Health Workers screened children aged between six months and five years for malnutrition based on measurement of Mid Upper Arm Circumference (MUAC). Those children at risk of severe malnutrition (red on the MUAC screening) were recommended for emergency referral to hospital although Nutrition Units were not established in all hospitals. Moderately malnourished children received supplemental feeding at Village Food Banks.

One result of these efforts was that the proportion of children six months old or younger who were exclusively breastfed increased from 31% in 2010 to 42.7% in 2012. Progress on nutrition activities was limited though. Hospital Nutrition Unit training was provided, improvements were made to screening, and referrals of severe malnourished children increased. However, poor attendance of malnourished children persisted at Village Food Banks and while MUAC tapes were distributed in most project areas, limited activities were implemented. A review of the existing strategy is recommended to meet the identified gaps in project townships.

The effort to document lessons learned from the programme was completed in 2012. The programme cost was found to be higher than global norms but was rated acceptable considering the difficulty of providing services in hard-to-reach areas. The study found that considerable gains could be made through further standardisation of JI-MNCH’s detailed procedures into regional health policies and processes, which could also be of benefit to national MNCH strategies. The report also made recommendations for future MNCH cooperative programmes.

The programme commissioned a Population-based Maternal and Child Health Survey that was used with other data to measure programme gains. This and the lessons learned study are being used to inform 3MDG Fund planning, which will continue support for maternal and child health services in JI-MNCH townships for the next 2-3 years. The Fund Management Office is preparing an advocacy briefing note for policy makers and a workshop to disseminate and use the lessons in the future programme. It will translate the executive summary into Myanmar for the relevant stakeholders and Basic Health Staff. Transition of the programme activities into the 3MDG Fund should further the sustainability of existing gains and is justification of the programme’s utility.

2.
Background

The Joint Initiative on Maternal, Newborn and Child Health was a collaborative programme to increase access to maternal, newborn and child health services among poor and hard-to-reach populations in areas affected by Cyclone Nargis.

Approximately 140,000 lives were lost in the 2008 cyclone and 2.4 million people were affected. In response to the tragedy the Tripartite Core Group, which was made up of the Government of Myanmar, ASEAN and UN partners, approved a Post Nargis Recovery and Preparedness Plan (PONREPP) in late 2008. The Health Cluster, which included agencies involved in the health relief effort, and the Myanmar Ministry of Health (MOH) pioneered a coordinated approach to health service delivery at the township, divisional and central levels, which laid the foundation for the JI-MNCH.

The programme started in May 2010 and by the year's end was running in three project areas in Labutta and Bogale townships. The Implementing Partners (IPs) were Merlin in Labutta Township, excluding Middle Island; IOM in Bogale Township; and Save the Children in Middle Island. In June 2011, Relief International started activities in Dedaye Township and then in November, IOM and Medecins du Monde commenced activities in Mawlamyinegyun and Pyapon townships respectively.

The programme was designed around best practice approaches to the delivery of enhanced maternal and child health outcomes. It included a minimum package of maternal and child health services – first outlined in the Health PONREPP – that were consistent with the government's National Health Strategy. The programme's results framework was based on international health indicators and a service-commissioning rather than a project grant-making approach to funding. Joint Township Health Plans and a monitoring framework guided activities.

The programme was financed until 2012 by a three-year fund of US$12 million that was supported by the governments of Australia, Norway and the United Kingdom. The United Nations Office for Project Services (UNOPS) administered the programme through a Fund Management Office (FMO). Funds flowed directly to UNOPS and IPs to support health activities at the township and community levels. The programme was in harmony with the framework of the EU Common Position on Myanmar and the practice of the Three Diseases Fund.

The programme resulted in improvements to health service access and health outcomes although problems persist such as low service coverage for maternal and child health, sub-optimal nutritional status and pockets of low health service access in hard-to-reach areas. Additional interventions by the programme addressed the psychosocial needs of Nargis survivors and sought to work with them to protect against future disaster risks through community-based disaster preparedness and response activities.

Right: A mother brings her child in for vaccinations at the Sub-rural Health Centre in Sein Ban Village.

3. Planning and Management

Governance Structure

The Steering Committee oversaw implementation of the JI-MNCH fund. It reviewed costs associated with the Joint Township Health Plans, managed the selection of IPs and provided oversight of the FMO. The committee met 18 times between 2010 and December 2012 and consisted of a representative from WHO, UNICEF, UNOPS, an NGO representative, a MOH focal point and the UNOPS director. There was also a donor representative who gave the consensus position of the donor consortium. The FMO acted as secretary to the committee.

Meetings during the early stages of the programme took place in Yangon so regular participation by the MOH was difficult and its representative could not chair meetings. This changed once the venue shifted to Nay Pyi Taw and the MOH representative shifted from the disease control to the public health-MCH division. The MOH focal point liaised between the programme and MOH decision makers in the areas of disease control, public health and health planning. As chair of the committee and through support for crucial decisions, the MOH made a vital contribution to joint ownership of the programme.

The Advisory Group was the main stakeholder consultation and coordination forum for all partners on the design, implementation and review of the programme. Participants included the MOH, WHO, UNICEF, Department of Health (DOH), Department of Health Planning, donors, IPs and NGOs. The group met seven times between 2010 and 2012. Holding the meetings in Nay Pyi Taw improved participation by the MOH, which in turn bettered understanding of its strategies and policies.

Some of the major inputs from the Advisory Group included: harmonisation of the Joint Township Health Plans and child survival strategy, improvement of the emergency referral mechanism, guidance on documentation of lessons learned, definition of hard-to-reach populations, and conduct of baseline and follow-up surveys.

UNOPS was responsible for the FMO, which held and disbursed funds, administered grant allocations, assessed proposals and undertook performance monitoring. The office staff included a fund management executive, a monitoring and evaluation officer, a project support specialist, an operation associate, an assistant and a driver.

UNICEF technical support helped align implementation with best practice in maternal and child health. UNICEF assisted the Joint Township Health Assessment, the review of the Joint Township Health Plans and reporting by IPs and the FMO.

WHO collaborated with the MOH focal point on policy and facilitated linkages between the DOH, the Advisory Group and the Steering Committee in areas of health planning, health financing, human resource management and partner coordination. WHO assisted with township health assessments, which were the basis of the Coordinated Township Health Plans (CTHPs).

Township Health Assessment and Planning

Township health staff and partners, including health officials, NGOs and the UN, conducted joint assessments to identify health needs in Delta townships with technical support from WHO and UNICEF. In the programme's first phase in 2010, Labutta, Bogale, Middle Island and Dedaye were assessed and in 2011 additional townships were added. Based on the needs identified, the health partners developed CTHPs, which were assessed by the Health System Strengthening Technical Working Group at the MOH. Once this was complete, the FMO invited potential IPs to express interest in managing project activities. Together with township health departments, interested IPs developed Joint Township Health Plans. These were scrutinised by a technical group including WHO, UNICEF and the FMO, before being passed to the Steering Committee for IP selection.

Left: Lei Lei Win, a midwife, prepares a vaccination at the Sub-rural Health Centre in Sein Ban Village.

4. Programme Achievements

By the end of the grant period in December 2012, the programme could report the following outcomes in the six project areas:

- 32,317 under-one children received the first dose of measles vaccine, which was 92% of the total number of under-one children.
- 33,766 children were given three doses of diphtheria, pertussis and tetanus vaccinations, which was 96% of the total number of under-one children.
- 19,084 newborns were delivered by skilled birth attendants, a target achievement of 62%.
- 37,772 pregnant women received two doses of tetanus vaccination, achievement of 93%.
- 10,039 emergency referrals were made to hospitals, including from poor and hard-to-reach populations, of which 6938 were made in 2012.
- 2871 malnourished children received nutrition support.

Programme

As described in chapter three, the Joint Township Health Plans for JI-MNCH were the result of collaboration between all health stakeholders and were based on need assessments. By the end of 2011, five IPs were implementing the JTHP in six townships in Ayeyarwady Region and at the close of 2012, the programme covered 1.6 million people, including 40,830 pregnant and lactating women and 181,430 under-five children.

The services included an essential package of high impact maternal and child health interventions that were delivered through Rural Health Centres (RHC) and Sub-Rural Health Centres (SRHC) with additional outreach delivery of primary health care services provided by Voluntary Health Workers living in communities. The minimum essential health services package included internationally recognised high impact child survival interventions identified in the 2003 Lancet Series on “Child Survival”, the intervention package for maternal and child health described by the International Consensus on Maternal and New Born Health in 2009, and the Myanmar Five-Year Strategic Plan for Child Health Development (2010-2014).

Developing Systems

A coordination mechanism that addressed the diverse needs of all stakeholders was essential to the delivery of services and to improving delivery based on regular, quality feedback. Mechanisms were established at the central, regional, township and community levels for this purpose. The programme utilised a one plan, one budget approach and health partners established a single joint monitoring and evaluation framework.

In addition to outreach services, an emergency referral system for obstetric care and childhood illnesses was established across project townships. This system was targeted primarily at women and children to ensure timely referrals and reduce maternal and child mortality.

Building Capacity

The outreach and emergency referral systems were bolstered by capacity building for Voluntary Health Workers and Basic Health Staff such as midwives. Hospitals and community based nutrition interventions were established or took place where needed and township mental health teams were formed to provide psychosocial support. Health emergency preparedness and response plans were also developed for townships and disaster prone villages.

Links were strengthened between the health authorities and the wider health system too. Programme specific activities were strengthened by workshops such as “Reaching Hard-to-Reach Populations”, which improved the identification of such populations and “Scaling-up Birth Spacing” to expand essential interventions for maternal health.

Lessons learned were officially documented and contributed to baseline and follow-up community based surveys.

Demand Side Approach

A health approach focused solely on providing inputs would be unlikely to achieve significant gains because it would ignore the diversity of needs within and across communities. The programme employed a demand side approach, which took into account the health-seeking behaviours and patterns of utilisation within communities. To achieve this, it revitalised or established new Village Health Committees to promote greater community involvement in health outcomes. It set up an emergency referral system and helped villages establish trust funds to finance emergency treatment. Community Health Workers and Auxiliary Midwives were trained to create a stronger linkage between communities and Basic Health Staff.

To build on existing gains as the programme transitions into the 3MDG Fund, mapping of the variety of health initiatives underway should be undertaken. Linkages with initiatives such as health financing should be made and comprehensive development plans encompassing environmental sanitation and safe drinking water established. How best to work with the private sector to build consensus and move ahead with key lessons should also be considered.

5. Implementation Achievements

5.1 Outreach and Hard-to-reach Activities

Through IPs the JI-MNCH programme supported outreach and hard-to-reach visits by Basic Health Staff (BHS). These visits delivered essential health services such as antenatal and postnatal care, delivery of children by skilled birth attendants, health education, immunizations and malnutrition screening for mothers and children. Medical emergencies were referred to township hospitals.

Table (1) Routine and hard-to-reach outreach visits by midwives

	2010		2011		2012	
	Target	Achieved	Target	Achieved	Target	Achieved
Outreach villages	-	-	1339	1339	2144	2144
Outreach visits	-	2858	10,641	8206	7509	5951
Hard-to-reach villages	-	-	204	204	274	274
Hard-to-reach visits	-	733	2128	1621	1382	1322

It is not possible to cumulate the results in Table 1 by year because in 2012 the definition of outreach and hard-to-reach villages was changed to comply with that favoured by the DOH. In addition, the way midwife visits were counted changed from a system that totalled the days they spent travelling to one that totalled the number of trips. Midwife vacancies were also factored into the targets. Combined, the changes resulted in lower targets and achievement in 2012 relative to 2011 but do not in fact reflect the true nature of service delivery, which improved. Even with the changes in 2012, it is clear that achievement of outreach and hard-to-reach visits was significantly higher than in 2010. A total of 5951 outreach (79% achievement) and 1322 hard-to-reach immunization visits were supported (96% achievement), covering all 2144 outreach and 274 hard-to-reach villages.

In addition to its mandate to reach hard-to-reach villages, the programme strived to reach hard-to-reach populations such as migrants and salt farm workers, which are often mobile and difficult to target. In the first years of the programme there was a lack of common understanding by IPs as to the exact definition of hard-to-reach populations. To resolve this, the FMO initiated a process between the MOH and IPs to develop standard criteria for defining such populations. This resulted in a township-level hard-to-reach workshop and a regional level workshop on “Reaching MNCH Services to Hard-to-reach Populations in JI-MNCH Townships” organised by the DOH and FMO between May and June 2012 in Yangon. Following the workshops, hard-to-reach mapping activities were conducted at RHCs and SRHCs by township health departments and the final list of hard-to-reach villages will be released in the first quarter of 2013.

5.2 Antenatal Care Coverage

Since the programme started in 2010 midwives and Auxiliary Midwives (AMW) achieved a significant increase in antenatal care. In 2012, midwives provided antenatal care for 37,635 pregnant women, almost double the number that received care in 2010.

The number of women receiving antenatal care from AMWs increased from 2010 to 2011. The programme trained a total of 499 new AMWs (see Table 6), more than half of which were trained in 2012, so the number of women who received antenatal care coverage by AMWs should have increased, although data is unavailable for 2012.

Table (2) Antenatal care coverage

Year	Pregnant Women	Pregnant women who received antenatal care by a midwife		Pregnant women who received antenatal care by an AMW	
		Total	Percentage	Total	Percentage
2010	25,188	20,451	81%	5023	20%
2011	27,196	21,827	80%	7785	29%
2012	40,830	37,635	92%	-	-

Source: Annual Evaluation of Community Health Care Program from each township.

The Population-based Maternal and Child Health Survey conducted in 2012 by JI-MNCH confirmed that programme support to increase antenatal care coverage was succeeding.[1] Although 67% of women received antenatal care by skilled personnel in 2012, the study suggested that the frequency and quality of care needed to improve since only 56% of women received the standard four visits. The survey also noted that only 88% of antenatal care visits included a minimum of any three activities including blood pressure, weight measurement, abdominal examination, blood test, urine sample, and vitamin B and iron supplements. This improved following discussions between township health teams and IPs, and the provision of urine test kits and blood pressure apparatus. Arrangement of special antenatal care visits also increased.

[1] Please refer to Annex D for more information on the Population-based Maternal and Child Health Survey and Lessons Learned documents. These and other resources are available in full at the 3MDG website: http://www.3mdg.org/index.php/resources

Yu Naing's Story

Yu Naing is seven months pregnant with her second child. She lives in Sein Ban village close to the Sub-Rural Health Centre so she has access to monthly antenatal check-ups with the midwife. "There's been an improvement in service," she says, "if there's anything wrong I can meet with the midwife and receive care." At six months the midwife referred her to Bogale to see the obstetric gynaecologist as a precaution. She and her baby were fine and another check-up was planned.

Health care provision has changed a lot since her first child was born seven years ago. At the time she was living in a village without a midwife and was ill with malaria. The Traditional Birth Attendant helped her give birth but the illness worsened and she was hospitalised in Bogale for one month. Yu Naing says the illness prevented her from breastfeeding so the baby was taken back to her village and breastfed by other mothers or with canned milk but tragically the child didn't survive.

The midwife has advised Yu Naing to give birth in the township hospital and she's agreed. "Giving birth here [in Sein Ban] is more convenient than the township hospital but I've had a caesarean section so it could be more problematic," she says, adding "It's safer than before because in the past we had no midwife."

"I'm scared about giving birth because I suffered a lot the first time. I can rely on the midwife though so I'm not as scared this time," she adds.

Above: Yu Naing receives antenatal care from the midwife at the Sub-rural Health Centre in Sein Ban Village.

5.3 Skilled Birth Attendance

The data from 2010 onwards indicates that an increasing number of women sought skilled birth attendance with midwives and that utilisation of AMWs was constant at about 15%. In 2012, 92% or pregnant women received antenatal care from midwives. However, only 62% of deliveries were assisted by a skilled person such as a midwife. At least 20% of women relied on care provided by Traditional Birth Attendants (TBA) and relatives.

Since the breakdown of live births by birth attendance does not equal the total number of live births in any given year the information for birth attendance must be incomplete. These women did not seek skilled birth attendance or register births with BHS so it is reasonable to assume that utilisation of unskilled birth attendance such as that provided by TBAs and relatives was significantly higher than Table 3 would indicate.

Table (3) Skilled Birth Attendance

Year	Total live births	SBA target	Received SBA	AMW target	Attended by AMW	Attended by TBA
2010	10,747	5552	4836 (45%)	1805	1736 (16%)	3749 (35%)
2011	18,013	11,300	9727 (54%)	3064	2699 (15%)	4122 (23%)
2012	30,824	17,628	19,084 (62%)	4616	4616 (15%)	5705 (18.5%)

5.4 Training

Auxiliary Midwives and Community Health Workers (CHW) are collectively known as Voluntary Health Workers (VHW). The programme emphasised capacity development for BHS and VHWs because this was essential to the achievement of programme goals and long-term sustainability. The main areas of capacity development were maternal and child health, emergency obstetric care, financial and logistics management, nutrition, psychosocial and mental health, and the promotion of quality child health services through exclusive breastfeeding and integrated management of childhood illness. In 2012, selection and deployment of trained volunteers was prioritised for hard-to-reach areas.

Table (4) Training participants supported from 2010 to 2012

Total training participants	**12,094**
Voluntary Health Workers	**7465**
Basic Health Staff, hospital clinical staff	**2828**
Traditional Birth Attendants	**1720**
Township authority and other departments	**81**

Basic Health Staff

Township trainings were organised for BHS and local DOH staff on essential maternal, newborn and child care. The following areas were covered:

- Prevention and management of childhood illnesses such as pneumonia, diarrhoea and malnutrition through immunization, monitoring, proper nutrition, exclusive breastfeeding and clinical assessment. Identification of danger signs that would provide justification for emergency referral of mothers and children.
- Signs, symptoms and management of post-partum and ante-partum haemorrhage, eclampsia, maternal and foetal distress, puerperal sepsis, and obstructed labour through basic and comprehensive Emergency Obstetric Care (EmOC).
- The national health policy, national population policy and reproductive health policy.
- Provision of quality reproductive health services with a focus on birth spacing counselling to enable women to make informed choices about birth spacing methods including IUD insertion and removal.
- Main indicators relating to health determinants, health services, health system inputs, health status and health system outcomes.

In addition to the essential subjects, special trainings were given on the Health Management Information System (HMIS), infant and young child feeding, training management, and leadership and management by central and regional DOH teams. Please refer to Annex A for more information.

A number of regional workshops and trainings were also held, mostly in Pathein and Yangon.

Table (5) Regional level trainings and workshops

Topic	Period	Location	Trainers/Facilitators
Township Mental Health Team Training	October 2011	Pathein	Department of Mental Health, UM1
Training of Trainers on Training Management	January 2012	Pathein	DOH and JICA
Leadership and Management	March 2012	Pathein	DOH
Hospital Nutrition Unit - Management of Severe Malnutrition	June 2012	Pathein	National Nutrition Centre with the Regional Health Department and Pathein Region General Hospital
Scaling-up birth spacing	June 2102	Yangon	DOH and partners
Reaching hard-to-reach populations	June 2012	Yangon	DOH and partners

Voluntary Health Workers

VHWs provide health education and assist emergency referrals and immunizations in areas beyond the everyday reach of Basic Health Staff.

Table (6) New Voluntary Health Workers

Year	New CHWs trained			New AMWs trained		
	Target	Achieved		Target	Achieved	
		Total	Percentage		Total	Percentage
2010	73	74	101	93	43	46
2011	407	325	80	183	162	88
2012	427	437	102	215	299	129
Total	907	836	92	491	504	102

Yearly targets are arbitrary because contracts covered more than 12 months and did not follow the calendar year.

AMWs deliver rapid access to obstetric care and emergency obstetric and child referrals. They are embedded in communities so they work independently but with support from BHS and IPs. The programme supported training for 499 new AMWs until December 2012, which increased village coverage from 28% to 39% (see Table 7). AMWs take six months to train and are required to witness a minimum number of deliveries so the expansion in coverage was an impressive achievement considering the training capacity of townships was limited. The versatility of AMWs led to a broadening of their role. They received training in exclusive breastfeeding in all townships and training in birth spacing, postnatal and newborn care in some townships.

Based on a training curriculum developed by the MOH and township health departments, the programme also delivered a major increase in the number of CHWs. A total of 841 were trained, which increased village coverage from 43% to 63%, ensuring that most villages have at least one type of VHW.

In addition to new volunteers, existing VHWs were given refresher courses and trained in exclusive breastfeeding, infant and young child feeding, complementary feeding, community based newborn care, integrated management of maternal and childhood illness, and maternal nutrition, although trainings were not consistent across all project townships. Considering the role of CHWs and the primary health care needs of mothers and children, the training curriculum would benefit from standardisation, and knowledge retention skills should be assessed following trainings.

There are many areas that VHWs and BHS could improve in with additional training in HMIS usage and the right support from IPs. One such area is reporting from SRHCs on outcome indicators, another is in data collection and analysis, review and explanation, particularly by BHS. Although VHWs and BHS in some areas share programme data such as emergency referrals and death follow-up, this could be broadened. In addition, the usage of medical supplies and morbidity could be linked for monitoring purposes to ensure drugs are procured and delivered without delays. More robust data on the performance of VHWs would improve feedback provided at monthly coordination meetings and the development of targeted case scenarios. Attendance by VHWs at RHC coordination meetings was about 70% and varied seasonally.

Above: Auxiliary Midwife Kay Htwel Oo is pictured with children in Da Min Daung Village after conducting MUAC measurements.

Traditional Birth Attendants

Reliance on Traditional Birth Attendants in rural areas can lead to unsafe deliveries if correct and aseptic procedures are not used. To reduce maternal deaths and identify potential complications early, TBAs were given clean delivery kits and refresher training on “Dos and Don’ts”. From 2010 a total of 1720 TBAs out of a planned 2237 were trained in project townships, which is 76% of the target. Issues related to the refresher training included reluctance by many TBAs to participate and fear of township health staff. Moreover, training targets did not reflect the total number of TBAs working in communities.

TBAs continued to attend at least 20% of births in 2012. Considering at least 60% of maternal deaths followed-up were attended by TBAs (see Table 14), a new approach should be considered to ensure they follow safe delivery practices. In addition, 83 out of 328 neonatal deaths were caused principally by low birth weight and sepsis so training TBAs in postnatal and newborn care should be considered, or at least an alternative mechanism to the newborn care provided by TBAs.

Coordination of health activities at the village level could be improved through stronger linkages between AMWs, midwives, VHCs and TBAs to ensure that all pregnant women receive quality antenatal care and essential support such as iron, vitamin B1 and de-worming tablets. Screening to determine risk status and planning for safe deliveries and quality postnatal and essential newborn care could also be improved.

Kay Htwel Oo's Story

Kay Htwel Oo is 19-years-old and has worked as an Auxiliary Midwife for two years. She became interested in the work after Cyclone Nargis, which killed her younger brother and destroyed their family house.

"I felt sorry for the people without care," says Kay Htwel Oo, "and I thought if my parents had a problem no one would be able to help them since the health care service was not great in the village."

"People are always worried about financial problems so they couldn't get adequate health care for their families."

To begin with she became a Red Cross volunteer and would help people with minor injuries and provide education on issues such as hygiene and sanitation. Working as a volunteer in the local school she became friends with the village's Community Health Worker who suggested she apply for the Auxiliary Midwife job. Soon she was off to Bogale to begin her six-month training where she learned how to take care of women from the first stages of pregnancy through to delivery and postnatal care. She struggled at first to use the wooden ear trumpet, which helps determine foetal health using sound, but she says her confidence grew when she started the three-month on the job training at Set San Rural Health Centre, which gave her time to refine her skills and take advice from the local midwife.

The Bogale training was the first time Kay Htwel Oo had been away from home and she says it cost her a small fortune in phone charges because she was homesick and would call her parents daily. She thinks it was much harder for married women though who often had to overcome their husbands' preference for them to stay in their villages.

By the time she got back home as a newly trained Auxiliary Midwife she was still nervous about her new responsibilities and limited profile. The village leaders helped her by bringing community members together for health education sessions and making sure she had an opportunity to speak.

"It was difficult at first since people didn't respect me. This lasted for about a year. Although I'm a trained Auxiliary Midwife people trusted the Traditional Birth Attendants so mothers went to deliver with them and not me. But I go to mothers to give health education and antenatal care so people are becoming more interested."

Kay Htwel Oo has assisted eight deliveries in her two years as an Auxiliary Midwife but thinks there have been 50 deliveries in the village in total. Traditionally women have delivered with one of the three Traditional Birth Attendants so it's been difficult to persuade women to seek skilled birthed attendance instead. Part of the problem is that people have traditional beliefs like the need to wear turmeric after birth, drink special pepper soup to produce breast milk and put hot stones on the stomach. Some of these practises such as putting turmeric on babies' navels are not hygienic.

"Some of the Traditional Birth Attendants refused to attend the 'dos and don'ts' training at the township level. I think they didn't want to participate because they are illiterate," says Kay Htwel Oo. "When I give advice to the Traditional Birth Attendants they shout at me and don't listen. They say you don't understand as much as me because I am well-known and experienced, you are trained but not experienced."

But she thinks that habits are changing slowly. More and more women are coming to her for antenatal care and when there are serious complications like bleeding the Traditional Birth Attendants ask for her assistance. "When I hear that a delivery is taking place I go but this isn't possible if I don't have any information," she says.

Kay Htwel Oo remembers the case of Ma Thida, who gave birth prematurely and was bleeding a lot: "Her husband called me to check on her and I realised she was an emergency case so I referred her to Set San… She could have died."

5.5 Expanding VHW Coverage and Reaching Hard-to-reach Populations

Villages in project townships totalled 2637 by December 2012 and CHWs and AMWs were working in 63% and 39% of them respectively. In the established project areas of Middle Island and Bogale the CHW coverage increased significantly from 2010 with a lesser rise in AMW coverage. In Labutta, the picture was more complicated and coverage post-Nargis actually declined from a high level, mainly because of the increase in villages from 489 to 651 that resulted from township boundary changes.

Coverage for AMWs was lower than for CHWs because for very small villages the expense of the six month training was not always justifiable and since AMWs require a higher level of education than CHWs, finding acceptable candidates in villages was sometimes a challenge. Finding suitable volunteers was also a challenge for CHWs, particularly from hard-to-reach villages where the pool of potential volunteers was more often limited by low education achievement. Once health workers were trained, regular and supportive supervision was needed together with rigorous assessment of knowledge retention and skills.

Table (7) Health Work Force

Year	Villages	Number and percentage of villages with:						Villages without Health Work Force*	
		BHS		CHW**		AMW**			
		Total	Percentage	Total	Percentage	Total	Percentage	Total	Percentage
2010	1539	181	11.8%	666	43.3%	430	27.9%	277	18.0%
2011	1761	203	11.5%	983	55.8%	595	33.8%	149	8.5%
2012	2637	315	11.9%	1,668	63.3%	1,039	39.4%	451	17.1%

*Villages without a Health Work Force, meaning no BHS, CHW or AMW, are served by BHS outreach visits only.
** VHWs are not counted in villages that have BHS.

However, monitoring of the health workers was not consistent across all project townships. In Bogale, it was achieved through monthly monitoring with check-lists and in Dedaye by Relief International health teams. In Labutta, performance monitoring recorded 297,643 consultations at the village level with an average of 20 cases per month per VHW over the life of the grant. Utilisation (expressed as a rate) of the population living in villages with a VHW over the programme period was 0.47 new consultations per person per year for all age groups and 0.61 new consultations per person per year for children under five. In Pyapon, MDM field staff supervised AMWs on a monthly basis and provided on-the-job training. They attended antenatal care sessions delivered by AMWs and assessed knowledge and quality of care provided through the utilisation of case scenarios. The Medical Superintendent and Township Coordination Committee undertook analyses of VHW reports and remedial action such as follow-up training was taken if necessary.

Beneficiaries from hard-to-reach villages have limited access to health services because midwives from SRHCs face logistic challenges in reaching them. To increase coverage, VHWs were based in villages to provide health services at any time. The first step in this process was a mapping exercise conducted by BHS and IPs to identify hard-to-reach villages in late 2011 and early 2012. This led to a new indicator being added to the log frame: “Percentage of villages with AMW/CHW in hard-to-reach areas”.

Table (8) Coverage of hard-to-reach villages by AMWs and CHWs

Year	Number of hard-to-reach villages	Number and percentage of hard-to-reach villages with:							
		Both a AMW and a CHW		Only CHW		Only AMW		Hard-to-reach villages without health workforce	
		Total	%	Total	%	Total	%	Total	%
2010	-	-	-	-	-	-	-	-	-
2011	207	55	26.5%	85	41.5%	18	8.7%	49	23.5%
2012	274	125	45.6%	106	38.7%	24	8.8%	19	6.9%

Following the mapping exercise and focus on hard-to-reach areas, coverage of VHWs increased significantly. By 2012, just 7% of hard-to-reach villages in project townships did not have a CHW or AMW.

Of equal priority was monitoring newly settled villages and migrant populations, which are often without access to essential health care. Over time, the programme became more successful at this. However, hard-to-reach populations still require more study to ensure service delivery.

5.6 Emergency Referrals

The emergency referral system links communities to life-saving emergency maternal and child care at the township level through support for medical, transportation and meal costs. Over the grant period over 10,000 life-saving cases were supported, of which almost 7000 were in 2012 alone. In total, 99.7% of EmOC cases survived, 98.6% of Early Childhood Care (ECC) cases and 96.5% of cases classed as “other”, an overall survival rate of 99%. Of the referrals, an average of 4% were from hard-to-reach villages although this rate increased from two to five per cent in 2012.

Table (9) EmOC and ECC referrals

Referral	2010					2011					2012				
	Total cases	Survived	Died	Other Outcome	Hard-to-reach	Total cases	Survived	Died	Other Outcome	Hard-to-reach	Total cases	Survived	Died	Other Outcome	Hard-to-reach
EmOC	151	151	0	0	3	1609	1595	4	10	38	3592	3577	11	4	185
ECC	41	41	0	0	1	897	874	7	16	23	2410	2363	33	14	138
Other cases	17	17	0	0	0	386	374	11	1	8	936	903	33	0	25
Total	209	209	0	0	4	2892	2843	22	27	69	6938	6843	77	18	348

Prolonged/obstructed labour was the common most cause of EmOC referral followed by eclampsia/pregnancy induced hypertension/ pre-eclampsia. Bad obstetric history, abnormal presentation and complications arising from caesarean scarring were the next major causes.

For a full breakdown of EmOC and ECC referrals by cause and project area please refer to annexes B and C.

The common most cause of death among referrals was eclampsia/pregnancy induced hypertension/pre-eclampsia and prolonged/ obstructed labour, followed by antepartum haemorrhage, abortion and puerperal sepsis.

Table (10) Interventions and outcomes for EmOC referrals in 2012

Township	Total cases	Interventions*				Deaths	
		LSCS	II	Normal	Other	Mother	Foetal/new-born
Labutta (Merlin)	689	382	99	132	76	2	25
Middle Island (Save the Children)	297	159	23	66	49	0	31
Bogale (IOM)	791	448	107	216	20	3	0
Dedaye (RI)	689	211	33	364	0	2	26
Mawlamyinegyun (IOM)	1038	360	288	390	0	4	0
Pyapon (MDM)	88	50	3	18	17	0	0
Total	3592	1610	553	1186	162	11	82

*LSCS refers to lower segment caesarean section. II refers to instrumental intervention other than LSCS. Intervention data is available for 3511 cases.

Almost half the EmOC cases were delivered by caesarean section, 15% with instrumental intervention and a third by normal delivery.

The World Health Organization estimates that complications will occur in 15% of pregnancies, which in project townships would result in about 6000 cases annually. Based on these assumptions, the 3592 EmOC referrals in 2012 represented about 60% of the potential obstetric emergencies. This would suggest that the referral system was a good proxy indicator of programme coverage. However, the referral system would benefit from better antenatal screening and linkages between midwives, TBAs and AMWs. Maternal death follow-up revealed that in 70% of cases, women did not seek assistance from professional medical staff even though about 75% received antenatal care – see Table 14. If screening were supported for high-risk pregnancies then women would decide and plan for elective LSCS or normal delivery in advance rather than rely on the emergency system should pregnancy complications arise.

Table (11) Gender and outcomes of ECC referrals

Township	Total cases	Gender		Deaths
		M	F	
Labutta (Merlin)	963	514	449	7
Middle Island (Save the Children)	530	289	241	3
Bogale (IOM)	272	131	141	5
Dedaye (RI)	278	139	139	7
Mawlamyinegyun (IOM)	272	144	128	11
Pyapon (MDM)	95	62	33	0
Total	2410	1276	1134	33

Of the 2410 ECC referrals, 47% were female, which suggests that no gender bias exists in the referral system.

Considering the significant variation in emergency referrals between project areas, the recommendation of the internal DFID audit to sample referrals for the purpose of improving understanding about how referral decisions are made should be considered seriously. Standard criteria for emergency need are required to replace the existing system, which relies predominantly on personal judgement. Criteria would not be based on medical need alone but take into consideration social and geographic factors. Specialists and programme managers should establish such criteria following a review of referral cases.

Station hospitals in Middle Island and Labutta were designated emergency referral hospitals in late 2011 after station medical officers and equipment were established there. The benefits included reduced travel times for emergency cases, reduced workload at the township hospital and financial savings. Other IPs should follow this example. The referral of emergencies to nearby hospitals in non-programme townships should also be considered. For example, referrals could be made to Myaungmya hospital from some villages in Labutta Township because the hospital is closer.

Table (12) Occupation of EmOC referrals, spouses and parents of ECC referrals

Occupation	EmOC	Spouse of EmOC	Parents of ECC
Dependent	1183	0	0
Casual Labourer	658	1819	869
Farmer	21	441	253
Salt farm worker	4	37	47
Fisher folk	1	92	123
Others	1	18	1
Total	1868	2407	1293

Data from Labutta is unavailable. Data from Dedaye is only available from August to December 2012.

Most EmOC referrals were dependants or casual workers and 76% of spouses were employed in casual work. For ECC referrals, 67% of parents were employed in casual work and though the proportion of such labour in project townships is unknown, based on the sampling survey of four townships in December 2009 conducted by Relief International, the average proportion of casual workers is approximately 51%[2] Additional random population sampling and collection of data on occupation/wealth is needed by township health departments and IPs to determine the proportion of casual workers in project townships.

Of the 6938 emergency referrals in 2012, 5% were from hard-to-reach villages. A lack of data by primary service providers on the occupational and residential status of patients and families referred for emergency care, particularly for vulnerable populations in hard-to-reach areas, placed limitations on programme planning. In future, all townships should provide data as more detailed records and analysis would be helpful to guide policy changes, improve training and strengthen community based services and the referral system.

Emergency referral costs varied both across townships and over the grant period. For example, in Labutta the average EmOC cost in Phase 1 was 108,910 Kyat but in Phase 2 was 93,791 Kyat. Costing services within the township system was a challenge and although the nature of emergencies makes absolute planning unrealistic, future grant making should strive to establish consistency on costs to increase budget accuracy.

The emergency referral system is saving lives and demonstrating that communities are working together and have benefitted from capacity building. The success of referrals may also be a good proxy indicator for the coverage and effectiveness of a large-scale community health project.

However, there is a need to both improve the referral guidelines and assess the financial risk posed to families by use of EmOC and ECC support. The current guidelines stipulate that without a receipt, no reimbursement for costs can be made. But this does not account for hidden costs associated with hospital care that cannot be reimbursed by IPs but which may constitute a significant financial barrier and hence disincentive to people in need of referral support. Although universal, free health care is the long-term goal, acknowledgement of hidden hospital costs in the short-term would ensure completely free emergency support.

[2] The four townships of Kunyangon, Dedaye, Pyapon and Bogale were sampled during the recovery phase of Cyclone Nargis. The proportion of casual workers was 54%, 51%, 53% and 48% respectively.

5.7 Maternal and Child Death Follow-up

Table (13) Maternal and child death follow-up

Deaths	2010			2011			2012		
	Total	Target	Followed up	Total	Target	Followed up	Total	Target	Followed up
Maternal	14	4	7	23	39	18	66	87	58
Child	298	125	15	393	114	104	730	229	330

In 2010, death auditing was conducted in Bogale and then started in Labutta and Middle Island in 2011. It was initiated in other townships in 2012. As interest in death auditing by BHS increased, reporting and follow-up investigations improved. In 2012, based on data from all project townships, 66 maternal deaths and 730 child deaths were reported of which 88% of the maternal and 45% of the child deaths were followed-up.

The format for auditing child deaths was different across townships and should be standardised with the use of database software. This would improve analysis of data.

Table (14) Maternal deaths by township and birth attendance in 2012

Township	Maternal death follow-up		Birth Attendance				Antenatal care	
	Total deaths	Hard-to-reach villages	Hospital staff	Midwife	AMW	TBA	Yes	No
Bogale	14	3	5	1	0	8	10	4
Dedaye	9	0	3	0	0	6	7	2
Labutta	11	0	2	0	0	5	5	2
Mawlamyinegyun	15	0	0	0	4	11	10	5
Middle Island	1	0	0	0	0	1	1	0
Pyapon	8	2	0	2	0	6	7	1
Total	58	5	10	3	4	37	40	14

Of the 58 maternal deaths, at least 65% were attended by TBAs and 10% were in hard-to-reach villages. In 25% of cases, no antenatal care was provided.

Although eleven maternal deaths in Labutta were followed-up, data was not provided on the type of birth attendance or whether antenatal care was provided for four cases.

Investigators should not only collect medical data but also social data such as the type of birth attendance, village, occupation and whether pregnancy care was sought.

Table (15) Comparison of causes of EmOC and maternal death follow-up

Causes	Number and percentage of EmOC	Number and percentage of maternal deaths
Pre-eclampsia/eclampsia	544 (15%)	12 (21%)
Post-partum haemorrhage (and retained placenta)	73 (2%)	21 (37%)
Ante-partum haemorrhage	164 (4.5%)	1 (2%)
Uterine rupture/inversion	3 (0.1%)	7 (12%)
Abortion	176 (5%)	4 (7%)

The common most cause of maternal death was post-partum haemorrhage at 37%. At 15%, pre-eclampsia/eclampsia was the common most cause of EmOC referral and at 21% it was also the second common most cause of maternal death. This would suggest that the capacity of midwives to manage eclampsia at the community level could be improved. To reduce such deaths in future, township and station hospitals should ensure the availability of urine tests for albumin and oxytocin and magnesium sulphate injections. Such data and improvements could inform future government policy on development of midwife capacity and availability of medicines at the village level. Although de-worming tablets and micronutrients were provided to pregnant women, there was no system to monitor the proportion of women who ingested them.

Table (16) Child deaths in 2012: Causes, gender and treatment seeking behaviour

Township	Child deaths				Treatment from				
	Hard-to-reach villages	Sex		Deaths followed-up	Doctor	BHS	VHW	Other	None
		M	F						
Bogale	6	11	13	24	4	1	0	10	9
Dedaye	0	13	7	20	2	7	1	8	2
Labutta	5	67	48	142	21	10	2	4	78
Maw-lamyine-gyun	1	36	62	98	10	4	1	30	53
Middle Island	2	22	23	45	11	8	0	4	22
Pyapon	0	1	0	1	0	0	0	0	1
Total*	14	150	153	330	48	30	4	56	165

*Of the 330 death cases followed-up, data was available for 303 cases.

Availability of essential health services and emergency referral broadened in project areas but was no guarantee of service utilisation. This problem was evident in the case of child deaths, of which 73% of those reported did not receive any treatment by a health care professional.

With emergency referral systems established, including in hard-to-reach areas, more attention should be given to reducing barriers to health care access that do not result from service coverage. Particular attention should be given to overcoming delays in the decision to seek care, which relates to factors such as poverty and awareness of both danger signs and the emergency referral system by community members and unskilled health care providers. Treatment seeking behaviours that lead to delayed decision should be studied to inform policy makers, managers, implementers and community leaders.

Table (17) Comparison of causes of ECC and child death follow-up

Causes	Number and percentage of ECC	Number and percentage of child deaths
Pneumonia/acute respiratory infection	985(41%)	57 (14%)
Acute diarrhoea with severe dehydration	356(15%)	15 (5%)
Malnutrition	56 (2%)	8 (2%)
Beriberi	113(5%)	62(19%)
Febrile fits	92 (4%)	74 (23%)
Neonatal emergencies	103 (4%)	66 (20%)
DHF	288 (12%)	0

The most common cause of ECC referral was pneumonia/acute respiratory infection at 985 cases (41%). This was the fourth highest cause of death (14%) among those followed-up. Rapid treatment for acute respiratory infections and pneumonia is rarely possible because antibiotics are only available from BHS who are not always available. In comparison, the second common cause of ECC at 356 cases (15%) was acute diarrhoea with severe dehydration but for this cause only fifteen deaths were reported, just 5% of the total. This was because ORS is distributed to both BHS and VHWs for use in villages.

Malnutrition (general malnutrition plus vitamin B1 malnutrition or beriberi) was the cause of death in about 21% of cases and with prompt diagnosis and treatment such deaths would have been prevented. Awareness and diagnosis of beriberi by BHS, VHWs and the community requires improvement and increased provision of micronutrients such as vitamin B1, FeSO4, and also de-worming tablets, which should be provided to AMWs.

Febrile fits were identified as the main cause of death in 74 out of 328 cases. This was almost one fourth of total child deaths yet febrile fits accounted for just 4% of emergency ECC referrals. This highlights the importance of collecting data on emergency referrals and deaths so that training of health workers, including VHWs, can be based on local epidemiology. Community based management of

fits and febrile fits should be provided for BHS and VHWs.

Neonatal emergencies, including birth asphyxia and low birth weight, were just 4% of ECC referrals but when combined resulted in 20% of child deaths, which is similar to other leading causes such as febrile fits and beriberi. This would suggest that health workers have limited understanding of neonatal emergencies and that the referral system is underutilised in this area. In addition, all townships should provide follow-up data on neonatal emergencies.

The data on maternal and child death follow-up indicated that pneumonia, febrile fits, beriberi and neonatal emergencies were the main causes of death. Effort is needed to improve treatment management and address the underlying causes. To achieve this, a technical expert review should be undertaken to evaluate training, needs assessment and policy in hospitals and at the community level.

Table (18) Comparison of emergency referrals and child death cases in 2012

	Total	Neonatal (<28 day)	28 day to 1 year	1 to 4 year
Child emergencies referred	2410	113 (4.7%)	656 (27.2%)	1641(68.1%)
Child deaths	328	83(25%)	189(58%)	56(17%)

Reported child deaths were eleven times higher than reported maternal deaths yet despite this the proportion of referred child emergency cases was a little more than half EmOC cases (67%). Furthermore, 83% of deaths in under five children were infants under one, which is similar to the Myanmar average of about 80%. So of the 2410 children referred, infant and newborn children were the most vulnerable age groups yet under one children accounted for only 32% of hospital referrals and just 5% for newborns.

The programme supported training in newborn and infant care for BHS and VHWs but it is clear that work is needed to modify the treatment seeking behaviour of parents too. Awareness of danger signs and conditions such as preterm and low birth weight must be widened beyond BHS and VHWs to include all health care providers including unskilled ones such as TBAs and caregivers so that infants and newborns receive proper care and emergency referral. Emergency care facilities should also be improved at hospitals.

5.8 Joint Monitoring and Supervision

Joint monitoring and supervision by township health staff and IPs ensured that health needs were being met in project areas. Health centres, the work of BHS and their coordination with IPs were monitored. The functionality of Village Health Committees and the accessibility of VHW services were also considered. Feedback on supervision visits was given at monthly coordination meetings attended by BHS and IPs whereupon follow-up action was determined.

Table (19) Joint Supervision Visits

Year	Target	Actual	Percentage Achieved
2010	48	18	37.5%
2011	105	82	78.1%
2012	262	201	76.7%

Despite targets more than doubling in 2012, achievement of joint supervision remained constant at above 75%. However, check-lists used during the joint supervision should be reviewed with DOH to improve the quality and reflect the partnership models. This would require monitoring of BHS but also IPs and their staff through assessment of relationships, support, risk and conflicts.

Left: Villagers attend a health education session in Ngwe Taung Village provided by the Community Health Worker.

5.9 Village and Village Tract Health Committees

The participation of communities in health planning and implementation was channelled through health committees that promote community participation in health and social development activities, and assist in management of emergency referrals and fund-raising.

Health committee members interact directly with BHS staff at RHC meetings and present and exchange information on health-related activities conducted at the community level. They also coordinate health activities at the community level with BHS.

Table (20) Activity of Village Tract Health Committees in 2012

Year	Number of Village Tracts	Village Tracts with a Health Committee		VTHC with a Village Tract Fund	
		Target	Achieved	Target	Achieved
Bogale	71	71	71	71	71
Dedaye	90	90	90	4	4
Labutta	82	82	0	0	0
Mawlamyinegyun	108	0	0	0	0
Middle Island	18	0	0	0	0
Pyapon	54	16	29	0	0
Total	423	259	190	75	75

Table (21) Activity of Village Health Committees in 2012

Year	Number of villages	Villages with a Health Committee		VHC with Village Tract Fund	
		Target	Achieved	Target	Achieved
Bogale	589	589	568	589	291
Dedaye	390	0	0	0	0
Labutta	651	651	651	651	296
Mawlamyinegyun	656	20	20	0	0
Middle Island	131	131	131	131	131
Pyapon	220	220	170	25	25
Total	2637	1611	1540	1396	743

Health committees were formed or revitalised in 1508 villages and 190 village tracts, a collective achievement rate of 95%. However, the targets varied significantly between townships. For example, in Bogale, Labutta and Middle Island, a greater emphasis was placed on forming or revitalising Village Health Committees (VHC) whereas in Dedaye the focus was on forming/revitalising Village Tract Health Committees (VTHC). In Bogale this became the focus after VHCs were made functional. Common across all townships was the prioritisation of hard-to-reach villages and the support for establishing health workers in such communities.

IP reports and qualitative findings of the lesson learned exercise confirmed that VTHCs and VHCs play an important role in linking communities and demand for health services with RHCs and BHS. They also contribute to assessments and local fund management for emergency referrals making their establishment a worthwhile exercise in all communities.

In four townships, VHCs were formed or revitalised in all villages although trust funds were established in only 30% of VTHCs and 45% of VHCs. All VTHCs and VHCs received management training by the respective township health department and IP. However, the VTHC/VHC curriculum should be standardised and the trust fund should explore integration with MOH financing initiatives such as Social Health Insurance and hospital trust funds, which can improve access to health services for poor people.

Most committees were established by the JI-MNCH programme through township health departments and IPs, which were key to building capacity, establishing trust funds and monitoring the functional status of the committees. IPs monitored the status of health committees using different criteria and benchmarks. Nonetheless, valuable lessons should be drawn from the experience of IPs to inform best practice on maintaining the functional status of health committees and managing trust funds successfully.

Right: Villagers attend a health education session in Tha Paung Village provided by the Community Health Worker.

5.10 Nutrition

The JI-MNCH programme strengthened nutrition surveillance and rehabilitation activities. VHWs screened children aged between six months and five years for malnutrition based on measurement of Mid Upper Arm Circumference (MUAC). Those children at risk of severe malnutrition (red on the MUAC screening) were recommended for emergency referral or supplemental feeding at Village Food Banks.

Health workers gave health education to families, caregivers, pregnant women and lactating mothers on the benefits of exclusive breastfeeding, a balanced diet, de-worming, preventing vitamin deficiencies and promoting hygiene (hand, water, food, and latrine). BHS and VHWs were trained on exclusive breastfeeding and child feeding practices. VHWs conducted awareness raising sessions on exclusive breastfeeding for pregnant and lactating mothers and cooking demonstration sessions were held in villages with assistance from VHWs, VHC members and BHS. Nutrition awareness training was given to Mother Support Groups to enable them to act as peer educators to disseminate health messages to other mothers in their communities.

One result of these efforts was that the proportion of children six months old or younger who were exclusively breastfed increased from 31% in 2010 to 42.7% in 2012.

Despite the progress on nutrition activities in terms of Hospital Nutrition Unit training and improvements to screening, referrals of severe malnourished children were still limited and poor attendance of malnourished children persisted at Village Food Banks. MUAC tapes were distributed in most project areas but limited activities were implemented. Since achievement on nutrition services was low, technical advice is needed from the National Nutrition Centre and technical agencies to ensure that an effective and practical strategy is in place.

Table (22) MUAC screening results and referrals for severe malnutrition

Activities	2010			2011			2012		
	Cases	Referrals	Percentage	Cases	Referrals	Percentage	Cases	Referrals	Percentage
MUAC screened	6649	-	-	14,882	-	-	37,973	-	-
Children at risk	471	-	-	471	-	-	1285	-	-
Moderately malnourished	246	-	-	1,136	-	-	775	-	-
Severely malnourished	30	0	0	110	0	0	148	13	8.8%
Global Acute Malnutrition	276 (4%)	0	0	1246 (8%)	0	0	1166 (3%)	13	1.1%

MUAC screenings: 2010 – two townships, 2011 – three townships, 2012 – five townships.

5.11 Scaling up Birth Spacing

The programme initiated provision of quality reproductive health services with a focus on birth spacing. Meetings to discuss the scaling up of birth spacing were held in June 2012 in Yangon and attended by the MOH, UNOPS, WHO, UNICEF, UNFPA, IPs and other INGOs working on reproductive health. Partner meetings were held later in project townships between medical superintendents, BHS, Marie Stopes International, Population Services International, UNFPA and IPs.

Procurement of birth spacing commodities, training and awareness raising activities was planned for JI-MNCH townships and included in the JTHP. Training for BHS on quality reproductive health, birth spacing and IUD insertion and removal was then conducted.

5.12 Disease Control

The programme supported the provision of solar cold chain systems and vector control equipment to facilities. It also supported mass measles campaigns, joint responses to measles and diarrhoea outbreaks and special EPI activities for migrant workers. For more information please see Chapter 4.

5.13 Health Emergency Preparedness and Response

To prepare for health emergencies, training workshops were provided in all townships for BHS in 2012 and facilitated by the DOH. These included briefings on the importance of Health Emergency Preparedness Plans, updates on the existing township health emergency preparedness plans, and brainstorm sessions on hospital emergency plans and mass causality plans. The workshops were joined by senior staff from township health departments, clinicians, IPs, representatives from township police forces, Myanmar Red Cross Society, Myanmar Maternal and Child Welfare Association, and township administrative departments.

All Townships developed Township Health Emergency Preparedness Plans, mass casualty plans and hospital emergency plans, which were approved by the Disease Control Division of DOH. As part of the emergency preparedness and response effort, community-based first aid trainings were provided at the village tract level in Dedaye. Community based first aid training was provided in the 90 village tracts. The Dedaye, the Myanmar Red Cross Society implemented trainings in coordination with RI and the Township Health Department.

Response to a tsunami alert

In April 2012 an earthquake of magnitude 8.6 was recorded near Indonesia. All IPs received the tsunami alert for Myanmar within 40 minutes thanks to the UNDSS security tree system and the FMO. Although it was a national holiday, IPs managed to activate the security tree system and work with medical superintendents, IP field staff in the delta and township medical officers. All boats and staff were instructed to return and IPs and medical superintendents coordinated health centres to ensure the safety of staff and patients whilst informing outpatients also. IP staff in Yangon and medical superintendents were in contact until 8:15pm when the tsunami warning was lifted. This coordination effort was successful because all actors could access information and take suitable precautions. JI-MNCH provided disaster risk reduction training and CDMA phones to health centres and the tsunami alert response proved these outputs effective for programme beneficiaries.

6. Management Achievements

Coordination

A strong aspect of the programme was that coordination at all levels of the stakeholder chain was developed from the community to the central level. Before JI-MNCH there was no mechanism to provide regular coordination between the township health departments and IPs, which made it difficult to plan community health activities with the support of the formal health system. The programme differed in that assessment, planning, implementation, and monitoring and evaluation were planned jointly by the DOH and IPs throughout.

Central level coordination meetings between the Steering Committee and Advisory Group, including annual review meetings, provided oversight of the coordination mechanism for all stakeholders at all levels. These meetings were a forum to advocate programme improvements with policymakers and administrators and were based on challenges or barriers experienced during implementation.

Regional level meetings strengthened coordination between the township health system, the Regional Health Department and IPs and also involved the participation of the MOH.

The purpose of these meetings was to evaluate progress, resolve implementation problems and provide updates on health policy and planning.

Township level meetings were monthly and attended by BHS, IPs and representatives from local and international NGOs. The meetings encouraged partnership and ownership at the township level and improved relations between IPs, medical superintendents and BHS. Partners used the meetings to review and plan monthly implementation of the JTHP and coordination with other activities.

RHC level meetings were conducted monthly for BHS and covered planning, achievements, capacity building, drugs distribution and submission of reports. RHC meetings with VHWs and VHCs improved coordination and participation in community health promotion activities.

The input of so many health actors in coordination meetings and the benefits such information sharing provided were an important factor in the success of the programme and should be given first priority in future implementation.

Operational Guidelines

With the assistance of a consultant, the FMO developed operational guidelines for the programme, which would form the basis for management of the JI-MNCH fund and its partnerships. The guidelines were in-line with the requirements of the donor consortium, Steering Committee and UNOPS. After the review process with stakeholders, the final draft of the guidelines was approved at the Steering Committee meeting in December 2011 and clear expectations on management practices by the FMO and IPs were established.

Joint Township Health Plan Unit Rates

The FMO established unit rates where possible and these were developed with input from IPs and township health departments.

Training unit rates were negotiated and standardised successfully. Unit rates for transportation, per diem and accommodation costs were agreed for trainees and trainers and included the following categories:

- BHS Trainees (township and regional level)
- BHS Trainers (township and regional level)
- AMW basic training, trainees
- AMW basic training, trainers (township and RHC level)
- AMW Refresher training, trainees
- AMW Refresher training, trainers
- CHW basic training, trainers (township and RHC level)
- CHW basic training, trainees
- CHW Refresher training, trainees
- Trainers (regional and central level)

Coordination with other Health Actors

The greater participation of non-contracted health actors and clinicians in coordination meetings was a positive step because it avoided overlap and improved essential health service delivery to outreach and hard-to-reach populations. The JTHP not only provided a basis to deliver MNCH services by JI-MNCH but also facilitated the coordination and planning of comprehensive health services and links to other developments and service providers. For example, Marie Stopes International partnered on reproductive health activities and Population Services International on TB activities and reproductive health to distribute information, education and communication materials and provide birth spacing commodities. The Myanmar Red Cross engaged in disaster risk reduction planning and first aid training.

The participation of specialist clinicians from township hospitals in monthly BHS meetings was also useful. Maternal and child health issues and referral support were discussed.

The JI-MNCH programme exchanged and shared information and experiences with the GAVI-HSS to align approaches and modalities. Lessons and experience from JI-MNCH were also considered in the formulation of the 3MDG.

Sharing information and practices among health partners was critical to planning and coordination. As an example of good practice, technical support from World Vision allowed IOM to successfully organise emergency health grant management training for all Village Tract Health Committees, ensuring they could manage revolving funds for referrals sustainably and accountably.

7.
Procurement

Delays in procurement for the Joint Township Health Plans were observed during the programme, particularly in the first year when issues concerning items, quantities and standard operating procedures affected implementation. During the later stages of the programme, consensus was achieved and local and international drug procurement faced only minor delays.

Independent procurement increased import times, limited value for money and posed a risk to the consistent availability of essential drugs. Since the approach to procurement was flawed, the next phase of funding through the 3MDG Fund will centralise the process. A standardised drug list for MNCH for different health facilities is under preparation by the 3MDG Fund in cooperation with IPs and the MOH, which is expected to reduce procurement delays.

Naw Paw Pree's Story

Tha Paung village has five wards and about 4000 people. Naw Paw Pree began work as an Auxiliary Midwife in ward two, which has about 100 households and 300 people. She started in 1985 but in 2011 undertook a five-day refresher course. She says this gave her a lot of new information and she was particularly pleased to get an AMW kit and a regular supply of drugs to give to patients.

Before Cyclone Nargis in 2008 she would buy equipment herself but all of this was lost during the cyclone. She bought a new set but this was again replaced.

So far in 2012 she says she's delivered 30 children in people's homes. When she identifies complications she refers women to hospital. "The system is better now because women get 100 per cent support. Before, women would have to go by themselves and pay money, which required many poorer people to collect money from people in the village first," she says.

Unfortunately not everyone in the ward relies on her skills. Women like Lwin Mar (pictured) are not uncommon in their preference to deliver with a Traditional Birth Attendant. "The Traditional Birth Attendant is very old and we use her because she gives good care... the TBA stays with the mother for two weeks and does washing and other services for 10,000 Kyat," says Lwin Mar.

Left: Auxiliary Midwife Naw Paw Pree provides antenatal care to Lwin Mar, who is seven months pregnant.

8.

Monitoring and Evaluation

Monitoring and evaluation was based on mechanisms established by the FMO, IPs and township health departments, with the support of the Advisory Group and Steering Committee.

When the programme started, planned targets were defined for the period until 2011, in-line with funding commitments. The logframe format used for monitoring and evaluation was based on a DFID framework. With extension of the programme until 2012, the logframe was updated with additional gender and community participation indicators by the FMO, IPs and the township health departments. It was in use by all IPs.

The Health Management Information System provided population data, vital data and project outcome data. In addition, IPs submitted quarterly technical progress reports that included project output data and qualitative information.

In 2010, field monitoring visits were not performed by the FMO because of limited manpower and problems obtaining travel authorisations. At the time, involvement from the central and regional health departments was limited. This was discussed at the regional coordination meeting in February 2011 and it was decided that the FMO would support the travel, meal and accommodations costs of field monitoring visits for the Regional Health Department and the DOH, which led to an increase in monitoring visits in 2012. Nonetheless, greater involvement by the health authorities would be an asset. For example, a focal person from the DOH at the regional and central levels would strengthen coordination and planning.

Field monitoring visits were conducted by the FMO to support the implementation of JTHP, identify gaps in support, assess risks, facilitate coordination and provide technical advice. In addition, FMO financial and administrative visits were made to understand procedures used by IPs. These informed monitoring and evaluation of audit recommendations contained in IP audit reports. For example, a joint monitoring team comprised of an MOH representative, donor representatives from DFID, AusAID, the Australian embassy, UNOPS and IOM visited Bogale Township in March 2012 to monitor programme activities and advise on improvements.

The FMO held several meetings in Yangon with IPs to improve joint implementation at the township level through harmonisation of health plans and unit costs and to organise the division of labour for regional level trainings.

Information gathered from trips and meetings was combined with that from the routine information systems and quarterly technical progress reports for use in the semi-annual and annual reports. These reports passed through the Township Program Coordination Committee, Divisional Coordination Committee, Advisory Group and Steering Committee to ensure stakeholder participation and accountability.

Right: Auxiliary Midwife Kay Htwel Oo conducts MUAC measurements on children in Da Min Daung village.

9. Coordination and Communication

The JI-MNCH programme depended on partnership between the MOH, IPs, the FMO and donors. To facilitate this partnership a coordination mechanism was established that functioned both horizontally and vertically.

Broader participation of partners

After soliciting statements of interest in May 2011 from INGOs on the expansion of the JI-MNCH programme, a joint assessment was made in Mawlamyinegyun Township by IOM and Save the Children and another was conducted in Pyapon Township by Medecins du Monde and Relief International. The assessments were carried out with township health department staff to identify health needs and baseline data. This was the basis of Coordinated Township Health Plans that would form a Joint Township Health Plan for funding support.

Advocacy

In early 2011 a new, democratically elected government took power. In response, the country director of the Myanmar Operations Centre under UNOPS, the Fund Management Executive of JI-MNCH and programme managers from 3DF and the Global Fund (including LIFT) met with the new Minister and Vice-Minister in June 2011 to brief them on their programmes, governance structures and objectives. At the regional level, the FMO met with the Minister of Social Affairs, the new Regional Health Director and new township medical superintendents between February and March 2012. IPs also conducted meetings with relevant township authorities, members of parliament and interested organisations.

Sensitisation in New Townships

Before the programme was expanded to Pyapon and Mawlamyinegyun townships, the respective medical superintendents were invited to Regional Coordination, Annual Review and Advisory Group meetings in 2011.

Steering Committee Meetings

The Steering Committee met 18 times up to December 2012. It was made up of representatives from MOH, WHO, UNICEF, UNOPS, donors and INGOs and provided guidance on the technical side of project implementation as well as approval and oversight for the budgets of the FMO and IPs.

During the early stages of the programme meetings took place in Yangon so regular participation by MOH was problematic and their representative was unable to chair meetings. This changed when the MOH representative shifted from the Disease Control division to the Public Health-MCH division and when the venue was moved from Yangon to Nay Pyi Taw. The engagement of MOH as chair of the Steering Committee and its support for crucial decisions made a valuable contribution to joint ownership of the programme.

The final Steering Committee meeting will take place in June 2013 at which the final report will be endorsed, audit reports provided and other issues discussed before the committee is closed. Under the 3MDG Fund, the roles of the Steering Committee and Advisory Group will be performed by the Fund Board and Senior Consultancy Group.

Advisory Group Meetings

The Advisory Group met seven times during the reporting period. Participants included MOH, WHO, UNICEF, DOH, Department of Health Planning, donors, IPs and other NGOs. Like the Steering Committee meetings, holding the Advisory Group meetings in Nay Pyi Taw improved participation by MOH, which in turn bettered understanding of MOH strategies and policies.

The Advisory Group meetings helped to develop the JTHP, child survival strategy and improvements to the emergency referral mechanism. It provided guidance on documentation of lessons learned, definition of hard-to-reach populations, and the conduct of baseline and follow-up surveys.

Additional topics discussed at Advisory Group meetings included the role of human resources in achieving the Millennium Development Goals and the terms of reference for the JI-MNCH lessons learned exercise.

JI-MNCH Annual Review Meeting

The two Annual Review meetings for 2010 and 2011 were conducted in Nay Pyi Taw. The meetings covered the progress and process of implementation and the programme was amended where necessary.

Regional Coordination Meetings

Three regional coordination meetings took place. They were an opportunity for township health actors, IPs and both central and regional MOH departments to evaluate programme activities, resolve implementation problems, build trust and deepen understanding of roles. Other INGOs working in project townships were also encouraged to participate in the meetings.

Areas for Improvement

For the most part the coordination and communication mechanism functions well but since it relies so heavily on the participation of a variety of stakeholders it is a challenge to maintain levels of interest. For example, as part of the response to Cyclone Nargis, affected townships held regular coordination meetings with partners but over time participation dropped off and the meetings required revitalisation once the programme was introduced.

In future, the central level should provide policy guidelines and greater technical support and the regional level should offer more administrative support. Clearer communication channels are needed between IPs, the FMO and MOH, and between the different administrative levels. Coordination should pivot around the CTHPs and the participation of non-contracted NGOs should be encouraged at the township level with clear objectives and meeting agendas in place to promote valuable participation among all health actors. Township reports should be shared with all interested parties, not only the FMO and MOH. Finally, task groups should monitor meeting outputs and the implementation status of recommendations.

Cho Chit's Story

When Cho Chit remarried and became pregnant she moved her family to Da Min Daung village where her husband was from. The village is in a hard-to-reach area so it receives fewer visits from the midwife than other more accessible villages, particularly during the rainy season when boat travel can be quite dangerous.

Cho Chit works in a forest area about an hour from the village and so missed the visit of the midwife. In her 34th week she was diagnosed with high blood pressure and suffered from breathlessness, which may have been caused by pre-eclampsia. On her due date she went to see the Auxiliary Midwife who referred her to Set San Station hospital where she gave birth. Cho Chit recognises that she should have visited the Auxiliary Midwife earlier but she didn't have any money and it was her neighbours who later informed her that health care was free.

"I did know about the Auxiliary Midwife service so I didn't visit her. I was afraid I couldn't give her any money to pay for the charges… I hadn't been living in the village very long so I didn't know," says Cho Chit. Her previous village had a station hospital so her first child Zin Zin Zaw was delivered there. When she arrived in the village she thought she had to pay because this is what she'd had to do in the past.

In total, she spent about 20,000 Kyat on the delivery. The cost of care was about 40,000, including treatment for her hypertension but she had four people with her and the referral system only pays costs for one other person.

"Without the system I would have needed to have borrowed money," says Cho Chit, adding, "As a joke, the doctor said that if I didn't claim the money back he would refuse to discharge me from hospital – I was crying."

10. Lessons from JI-MNCH

10.1 Documenting Lessons Learned

In 2011 the IPs expressed interest in documenting lessons learned from the programme. A technical reference group made up of MOH officials, donors and health partners was formed and a study framework and TOR were developed.

Four objectives were identified to draw out key lessons for future MNCH development:

1. Overall impact to determine the extent to which JI-MNCH achieved its purpose,
2. Impact on hard-to-reach, poor and vulnerable populations,
3. Indirect impact of partnerships, capacity development and lessons for sustainability,
4. Costs and value for money.

The collaborative exercise involved a technical reference group, national technical consultants, a consultant health economist and a research team from the Burnet Institute. It was carried out between July 2012 and January 2013 and focused on Bogale and Labutta townships (including Middle Island as a discrete site). Both quantitative and qualitative data were collected.

Study findings:

- Coverage in JI-MNCH implementation sites increased for skilled birth attendance although it still remains at a modest level. Improvements were found in emergency obstetric referral and in some aspects of immunization and antenatal care.
- The programme helped to establish new forums for cooperation and dialogue on MNCH and health systems strengthening at the regional and central levels and it supported stronger systems for township-level planning and coordination.
- Preventive care and emergency referral, especially for obstetric care was succeeding in reaching hard-to-reach villages and poorer social groups. The uptake of emergency referral support in hard-to-reach villages was close to international norms based on the expected need for such referrals in the project villages.
- Distance remains the most critical factor determining access to skilled birth attendance. Remote villages had less access to skilled birth attendance and higher rates of home delivery. Poorer socio-economic groups had less access to services especially in remote villages but also in non-remote villages. However, in non-remote villages with a functioning health centre, there were no significant differences in access to skilled birth attendance among different social classes. There was a gap in access to emergency referral support among the lowest social class in non-remote villages that lacked a health centre, namely villages that were not specially targeted as hard-to-reach.
- Home deliveries were still common but increasingly were being attended by a midwife or an AMW, especially in non-remote villages without a health centre.
- Traditional Birth Attendants continued to play an important role, particularly in remote villages and among lower social classes. The choice of TBA as birth attendant appeared to decrease when other options were available but even in villages with the best access, 20% of women delivered with a TBA regardless of their social group.

Key lessons:

- Volunteers (including AMWs) had effective roles in preventive care, childbirth and childhood illness, and their support and supervision needs close attention.
- Optimising health workforce placement and tasks, especially that of the midwife, was potentially powerful and needs continued work.
- Increasingly standardised procedures for emergency referral based on JI-MNCH lessons are useful for other townships and regions.
- Effective emergency referral requires the maintenance of well-managed local funds and guideline procedures that minimise up-front costs to the poor.
- Greater effort is needed to overcome seasonal constraints and reach migratory populations.
- The overall cost-effectiveness of JI-MNCH was estimated to be US$298 per Disability Adjusted Life Year (DALY), which is less cost-effective than WHO standards of US$150. However, the JI-MNCH figure included the set-up costs of a very short programme and since data was limited, potentially underestimates the DALYs averted.
- Some stakeholders perceived the programme as expensive but JI-MNCH only incurred an additional spend of US$2.71 per capita per year. This was an increase of 68% on the current health spend but it represents a small amount compared with most other countries, even those with lower GDP per capita.
- Community interviews, including those as part of the Rapid Survey, confirmed that out-of-pocket payments were a significant barrier to care, particularly for the poor and even when reimbursement was available. Community members continued to perceive cost barriers, both in health service fees and transportation, as the most important barriers to health care access.

Conclusion and Implications for Future MNCH Development Efforts

The JI-MNCH model, which was characterised by central-regional and township-level cooperation between government, development partners and INGO implementers, increased coverage of essential MNCH services, including targeted hard-to-reach areas. The programme resulted in a remarkable level of access to emergency referral support.

The programme continued to face challenges in reaching poorer socio-economic groups and in increasing the proportion of women with access to facility-based childbirth. These challenges affected both remote and non-remote areas but especially those villages without a functioning health centre.

The cost of the programme was higher than global norms but was rated acceptable considering the difficulty of providing services in hard-to-reach areas. There are considerable gains to be made through further standardisation of JI-MNCH's detailed procedures into regional health policy and processes, and considering how they could inform national MNCH strategies.

Future MNCH cooperative programs would need to pay special attention to the following:

- Establishing good baseline and subsequent programme level population-based surveys, and alignment of HMIS indicators that cover place of childbirth, attendants, type of delivery, and use standard WHO indicators for childhood illness and care-seeking.
- Additional health information strengthening for monitoring purposes.
- Options to reduce out-of-pocket payments and community perceptions of cost barriers to care.
- Increased attention to interventions for nutrition and birth spacing.
- Broad definitions of 'hard-to-reach' to ensure

that poor and vulnerable subgroups have access to services and that outcomes are monitored with a strong equity focus.

- Linking procedures for identifying the poor and vulnerable with tailored strategies designed to reach them.

The FMO will prepare a briefing note for policy makers and hold a workshop to disseminate the lessons learned by JI-MNCH and use them in future programming and planning. The Executive Summary will be translated into Myanmar for relevant stakeholders and BHS in the programme townships.

10.2 JI-MNCH Unit Cost Analysis by HERA (Technical Support for 3MDG Fund)

HERA was contracted to analyse the unit costs of services provided under the 3MDG. JI-MNCH figures were used to calculate the actual unit costs incurred under JI-MNCH. The following describe in detail some of the findings. of the analysis.

Cost Drivers

An analysis of one township/IP budget showed that drugs/health commodities, training of health staff and volunteers (BHS, AMWs and CHWs), referrals (demand side financing schemes) and outreach sessions accounted for almost 80% of total recurrent costs as per Table 23.

Table (23) Township/IP recurrent budget analysis

	Percentage of recurrent budget
Drugs and health commodities	38%
Training	25%
Referrals (including demand-side financing schemes)	15%
Outreach sessions	7%
Coordination, supervision, monitoring	7%
Others	8%
Total	100%

Capital budget and operation/management budgets are not included.

Operation budget/expenditure versus township budget/expenditure

IP budget and financial statements were made up of two parts: operation/management costs such as salaries for international and national technical and administrative staff, technical assistance, transport, and procurement of office equipment; and the Joint Township Work Plan, which had costs relating to interventions at the township level. Table 24 illustrates important disparities between IPs' budgets. The share of the operation budget on total budget varied from 33 to 50 per cent (37 to 60 per cent in terms of actual expenditure) until the end of September 2012. This raised the following questions: What could justify such differences? What was the share of fixed costs (administration, back office) in the 'operation/management' budget?

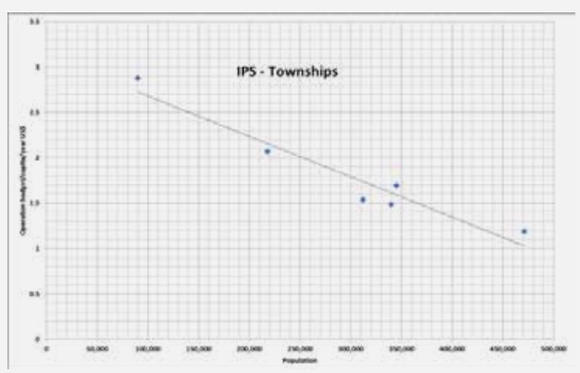
Table (24) Operation budget/expenditure versus township budget/expenditure

	Range	Average	Median
Operation (management) budget / total budget (%)	33% to 50%	42%	40%
Operation (management) actual expenditure / total actual expenditure (%)	37% to 60%	49%	49%
Budget per capita per year (US$)	3.02 to 7.44	4.46	3.54
Operation (management) budget per capita per year (US$)	1.19 to 2.88	1.81	1.62
Budget allocated to Township plan per capita per year (US$)	1.71 to 4.56	2.65	2.02
Total expenditure per capita per year (US$)	1.62 to 5.59	3.06	2.49
Total operation (management) expenditure per capita per year (US$)	0.98 to 2.39	1.43	1.31
Actual expenditure / budget (%)	41% to 74%	57%	58%
Operation (management) expenditure / operation (management) budget (%)	49% to 85%	67%	69%

Disparities also existed in budget/expenditure per capita with total expenditure per capita per year ranging from US$1.62 to US$5.59. It was difficult to explain such disparities: Different initial situations? Different contexts? Different targets? Different scope of work (although the package of health services should be the same for all IPs)? The weight of operation/management budget? The unit costs/standard costs used to elaborate the budgets?

The data showed a strong (negative) correlation between the size of the population covered and the ratio "operation-management budget (or expenditure) per capita", which probably reflects the relatively high share of fixed costs included in the operation/management) budget (see Figure 1). As part of the future contracting under 3MDG the kind of standardisation needed to allow budget comparisons should be considered. For example, the cost of inputs, unit cost of activities, and unit cost per output. Having one IP cover several townships would dramatically reduce the burden of fixed costs (relating to management/administration) on total budgets.

Figure (1) Township/IP recurrent budget analysis



Training Activities

Analysis showed important disparities between unit costs for training activities (variation factor –maximum value/minimum value – ranging from 1 to 3.9 for the same activity). These findings will be used when preparing and budgeting training activities under the 3MDG Fund.

Ei Ei Myo's Story

Ei Ei Myo and her husband Zeya Myo work in a rice mill and have four children, two of which – Win Pa Pa Myo and Linn Pa Pa Phyo – are twins. Two months after their birth Ei Ei Myo found that she could no longer produce breast milk so she fed the twins bottle milk instead. Since Ei Ei Myo and her husband are not wealthy they could not afford a quality breast milk substitute and the development of the twins began to slow. At four and a half months they became ill and needed hospital treatment, possibly as a result of beriberi.

The children recovered but at age one their development was definitely behind that of other children says Ei Ei Myo. She wanted to take the twins to hospital but knew she couldn't afford it. Thankfully, someone in the village told her that nutrition support was available through the Village Food Bank committee, which investigated her case and started supplementary feeding for the children three times per week. On other days Ei Ei Myo feeds the children herself. "I gave birth to them so I am responsible for feeding them," she says. "I'm grateful for the support three days per week but if I could feed them every day that would be better."

The Village Food Bank has also conducted cooking demonstrations for Ei Ei Myo and other mothers, and teaches families about hygiene and the preparation of clean and nutritious food. A few months into the support, the children have not made major weight gains but Ei Ei Myo says they are far more active and where before they would only crawl, now they are starting to stand.

Left & Right: Ei Ei Myo feeds her daughters Win Pa Pa Myo (in green) and Linn Pa Pa Phyo with help from the Village Food Bank.

11.

Population-based Maternal and Child Health Survey

Ideally, baseline and annual surveys would have been conducted to measure the success of the programme in each project area. Annual surveys were not possible but a Population-based Maternal and Child Health Survey was completed in 2012, which provided a point of comparison with data from the 2010 Periodic Review IV. The survey was a cross sectional quantitative study. Its goal was to measure knowledge, practices and coverage of health behaviours and services related to maternal and child health in project areas. The study population was mothers with under five children living in six townships.

A draft survey protocol for the survey was presented at the Advisory Group meeting in December 2011 and a technical working group was formed to finalise it. The Ethical Committee under the DOH approved the proposals in September 2012. In October, a baseline and follow-up population based MCH survey training of trainers was conducted in Yangon for the survey team supervisors and co-supervisors from all project townships. Multiplier trainings were then held in the townships for survey team members and field data was collected in November.

The main finding was that a greater focus on households in the poorest quintile of the wealth index was needed.

Table (25) Findings of key indicators measurement

Key indicators	Periodic Review IV (2010)	Survey (2012)	HMIS (2012)
Proportion of births attended by skilled personnel	41%	47.2%	62%
Percentage of pregnant women who received antenatal care one or more times by midwives	-	67%	92%
Proportion of pregnant women who received at least 2TT.	77%	79.4%	92.5%
Proportion of 12-23 months olds vaccinated against DPT3	78%	89.3%	96%
Proportion of 12-23 months olds vaccinated against measles	89%	74.5%	92%
Proportion of children 0-59 months with diarrhoea receiving ORT	55%	65.2%	97%
Proportion of children 0-59 months with pneumonia who treated with antibiotics	-	25.5%	91.2%
Exclusive breastfeeding	31%	42.7%	44.3%

In Table 25, the findings from the Periodic Review IV serve as a baseline to measure interventions undertaken by the JI-MNCH programme until the end of 2012. A two-stage cluster sampling method was used in both the baseline Periodic Review data and the comparison data gathered in 2012. However, the sampling approach differed in that the baseline study used area-based sampling and the latter study population-based sampling. Although valuable, the HMIS data is limited by the fact that it only includes data on people that sought facility-based health care.

The study was principally commissioned to provide baseline data for programme evaluation but it is also valuable to township health departments and IPs in project areas. The data on maternal and child health is also being used in national level 3MDG indicators.

The nature of this kind of survey is on-going and similar studies are required in future to determine the success of interventions. It is recommended that such studies should be systematised to aid comparisons with existing baseline data. Questionnaires used in such studies could be reviewed by a group of subjects and survey experts from related fields to ensure utility, feasibility of long-term application, clear formulation of questionnaires and proper compatibility with the national level indicators.

Below: Lei Lei Win, a midwife, measures the height of Yu Naing, who is seven months pregnant, during an antenatal care visit.

12.
Initiatives and Studies

Improving Regular Service Coverage and Quality

Before the programme started BHS struggled to provide health services in most villages, especially those in remote areas. The programme resolved this by supporting travel for midwives based on visiting plans they developed.

In addition to ensuring regular coverage of villages in both outreach and hard-to-reach areas, BHS were able to spend more time in hard-to-reach villages engaged in immunization and other health activities. However, time limitations and the heavy workload for midwives meant that not all essential services could be provided in one visit so at least two visits were needed monthly. Community participation was fostered through the assistance of Village Tract Health Committees and VHWs, which mobilised communities to access health services leading to an improvement in EPI and MNCH. The participation of these health actors was of crucial support to BHS.

Since the programme was based on a collaborative approach that sought to foster ownership by government health partners, the role of IPs in community services was to facilitate outreach, emergency referrals and VHWs. The programme placed villages into three categories: in-reach, outreach and hard-to-reach. The criteria for determining hard-to-reach populations and locations were developed by township health departments and IPs but are in need of review.

Areas for improvement:

- Technical guidelines would help planning and preparation of field visits by BHS, midwives, and health partners
- The participation and support of VHWs, VHCs and communities should be fostered to ensure that all essential health services are available at the community level. For example, this could include the collection of EPI and antenatal care data, and ensure follow-up of missed clients.
- Visits to villages should be increased to ensure all essential services are delivered by BHS.
- Transportation support currently provides for one visit by midwives and BHS (except in Bogale) so additional support would allow them to improve care in hard-to-reach and outreach areas.
- A standard mechanism for reimbursement of travel and meal costs is needed and a system for cross-checking the validity of outreach reports too.
- Consensus on the criteria for outreach and hard-to-reach areas is lacking. A remapping of RHC areas and the establishment of new RHCs and SRHCs led by the DOH would reduce the number of outreach and hard-to-reach areas.
- The monitoring and analyses of outreach visit reports by township health authorities should be improved.

Ensuring Availability of Essential MNCH Services

Training and supporting AMWs and CHWs in villages without BHS was particularly important in hard-to-reach villages because they provide MNCH services on demand. Essential health services that are not covered by VHWs are provided monthly through outreach and hard-to-reach visits by BHS.

Helping communities look after their own health needs was served through the establishment and capacity development of Village Health Committees and Village Tract Funds (VTFs), which function as an enabling environment for community health and emergency referrals. In addition to efforts by BHS, VHWs and IPs, such groups raise community awareness about health issues and the availability of services such as emergency referral.

Vacancy tracking is important to the health of the system so to maintain it vacant midwife positions in SRHCs need filling and non-functioning CHWs/AMWs in villages either need additional support or replacing. Villages without a CHW or AMW should be supported to have one. Since the abilities of CHWs and AMWs are limited, in some communities essential services such as management of pneumonia - one of the leading causes of death - and birth spacing activities should be supported.

In future, improvements should be made in monitoring the availability of services and functional analysis used to identify service gaps. In addition, health workers should be subject to regular performance reviews.

Improved Training

Capacity building for BHS and VHWs was an essential part of providing quality services but the number of training topics and availability of trainers was a challenge, particularly in the first year of implementation. To overcome the problem, more were trained with the support of DOH although additional capacity for central and regional training teams is still needed.

After the initial VHW trainings were completed, the performance of CHWs and AMWs was evaluated by some IPs (notably Merlin and RI) based on monitoring check-lists. These were used to assess gaps in performance and find ways to link with BHS for continued support.

In future, follow-up for VHWs should take place in all townships. Other improvements to training would include a standardised and broadened training curriculum for BHS, VHWs and TBAs; further behaviour change training for TBAs so they understand more about safe delivery practices, newborn care, managing low birth weight babies, and how to refer emergencies. Finally, training should encompass behaviour change training techniques and skills development.

Learning from Data

Data analysis based on emergency referrals, VHW coverage, and reports from VHWs and BHS was used to monitor the scope and quality of service delivery with a view to improving it. In Labutta, a data analysis of outreach reports covering 27 months found that 90% of midwives submitted monthly reports and that, on average, each midwife managed 89 consultations per month, of which 39% were for child immunisations, 35% for antenatal care, 9% for postnatal care, 9% for newborn care, 4% for deliveries and 4% for morbidity consultations. Of deliveries reported, midwives assisted 46%, TBAs 32% and AMWs 22%.

Data from emergency referrals enabled the assessment of coverage, types of beneficiaries and follow-up of referrals once they returned to their villages. Collection of data would begin at RHCs with a record of the person who referred the patient and the distance they travelled. This data was later shared with senior clinicians such as obstetricians and paediatricians.

The findings were used to improve capacity development for IP staff and BHS, and informed health education sessions in communities. The findings were also used to make broader judgments about the effectiveness of the referral system across project townships.

The role of VHWs and VHCs in the referral system was crucial and their involvement saved lives. For example, a Merlin analysis in Labutta showed that 59% of EmOC and 65% of ECC cases were referred by VHWs and 40% and 29%

were referred by BHS. Private practitioners, VHCs and family members initialised referrals in other cases.

Death audits provide information on the place, cause of death and treatment seeking patterns. When this data is cross-checked with emergency referral data it can be used to benefit training and targeting of services.

Areas for improvement:

- Stakeholders should work harder to share data with partners and use it more widely in township coordination meetings.
- The audit format and guidelines should be reviewed and database software used to facilitate analysis.
- Data management capacity at the township level should be improved.
- Death follow-up is currently stymied by inconsistent coverage across townships and non-standardised child death reporting formats. Also, reporting on the cause of death is unreliable because doctors cannot always participate.
- Lessons learned should be used to inform future programming such as policy review, planning, capacity building, supply, health service interventions and coverage and demand side interventions.

Strengthening the Emergency Referral System

In Bogale the Township Health Department and IOM developed flyers detailing the nature of the JI-MNCH referral package and how to go about utilising the service. These were distributed through VHWs in communities with a particular focus on hard-to-reach villages. The flyers contributed to a significant uptake of referral services in hard-to-reach villages in 2012. In Labutta, the Township Health Department worked with Merlin to assess, define and develop a plan to support hard-to-reach populations living in urban slum wards. In Mawlamyinegyun, risk-pregnant women were referred to the specialist outpatient department for screening and delivery planning.

Evaluation of the Community Health Financing Mechanism

In June 2012 a preliminary community health financing assessment was conducted in 60 villages in Mawlamyinegyun Township. This formed the basis for selecting villages and developing interview guides for a qualitative assessment that followed in October.

Village health funding mechanisms were introduced in the 60 villages as part of the Nargis response in 2008 and it was observed that progress was made in more than half the villages based on levels of competency to handle cash and accounts, interest to work voluntarily and give up time, and organisational ability to manage a collective fund. It was noted that the economic status of the villages and predictability of the work environment were also factors in the success of such funds.

Use of the emergency referral funds when they were established in the township was limited to maternal cases and children under five so most of the health funds were unused. To utilise these funds the study recommended that the scope of benefit be widened to include referral of high risk cases before complications arise and target covered be reconsidered with a view to expansion.

Different community health financing approaches have been taken by health agencies in the Delta region. The evaluation recommended that the government and development partners establish a more complete and locally relevant evidence base to identify the conditions under which demand side approaches improve access to quality maternal health services without financial burden.

Improved documentation and sharing of experiences was also considered a factor in expanding effective interventions.

Fund growth was not a guarantee for health and development needs. Additional technical support and flexibility in managing and utilising the referral funds is essential to ensure their growth and effective utilisation.

Linkage with Other Initiatives

The JI-MNCH programme has fostered links with other initiatives in the project townships, from building on the establishment of village-based self-help groups for community health financing to looking at issues of women's literacy, empowerment and socio-economic status as they pertain to health-seeking behaviour.

Relief International drew on its international health advisers to consult on issues of disaster risk reduction and health data collection and reporting.

With technical support from World Vision, IOM organised emergency health grant management training for all Village Tract Health Committees in Bogale Township. The training by World Vision focused on managing emergency health grants, the roles and responsibilities of VTHC members in fund management, methods of fundraising, the importance of community contributions to revolving funds, how to revolve and manage funds, and basic book keeping. By December 2012, five trainings were conducted for 211 VTHC members.

Drug Supply System

Initially, regular drugs were supplied to all RHCs, SRHC and VHWs twice yearly but in May 2011, quantification of supplies became based on population and morbidity in Labutta to better reflect actual population needs. Establishing consumption data and detailed morbidity reports at health facilities took time so other IPs moved to this system in 2012.

13.
Budget and Disbursement

The total received funds from donors during the programme amounted to US$12,741,922 including US$50,355 in cumulative interest earnings.

Table (26) Summary of Funding Received in US$

Funding Source	Commitments 2010	Received in 2010	Commitments 2011	Received in 2011	Commitments 2012	Received in 2012	Commitments	Received 2010-2013
DFID	2,721,417	1,881,460	2,621,021	2,621,021	2,236,233	3,076,190	7,578,671	7,578,671
AusAID	926,620	926,620	2,517,003	2,517,003	-	-	3,443,623	3,443,623
Norway	1,669,273	1,669,273	-	-	-	-	1,669,273	1,669,273
Interest	-	10,277	-	16,254	-	23,824	-	50,355
Total	5,317,310	4,487,630	5,138,024	5,154,278	2,236,233	3,100,014	12,691,567	12,741,922

The programme estimated fund expenditure at US$980,165 for the operation of the FMO, US$10,083,161 for grants to five implementing partner based on six grants.

Table (27) Fund Expenditure in US$

Fund Expenditure in US$	2010	2011	2012	2013*	Total
2010-2013*					
Description					
Operation of the FMO	144,185	233,981	337,469	264,531	980,165
Programme costs (grants to IPs)	2,205,398	4,319,924	2,339,085	1,218,754	10,083,161
Support for the Steering Committee	-	-	-	-	-
UNICEF (planned under pass-through funds)	-	-	-	-	-
Facilities and administration	32,147	59,316	47,009	30,705	157,315
Total	2,381,730	4,613,221	2,723,563	1,513,989	11,220,642
Direct support cost 2012 adjusted and recorded in 2013 (AEM13MM021)			9463	-	9463
Grand total	2,381,730	4,613,221	2,714,100	1,518,989	11,211,179

The budget and estimated expenditure for the programme are presented in full in Annex F. The JI-MNCH Indicative Financial Status Report as of June 2013 is in Annex G.

The estimated balance as of May 2013 was US$1,518,881. The absorption rate against contracted amounts was 88%, including FMO costs.

Implementation and Budget Absorption Rate

To follow-up and avoid continued low implementation and absorption rates of the agreed work plans and budgets, the FMO monitored IPs on a quarterly basis and negotiated new work plans and contracts annually. A bi-annual work plan and budget reviews were also introduced. The continuing work plan and budget negotiations were time consuming and had little or no effect on the absorption rate. However, they enabled the FMO to follow-up efficiently when implementation was slow and when mediation between IPs and township health department staff was required.

The continued low budget absorption rate would indicate that the IPs overestimated the cost of planned activities. This point was brought forward for consideration as part of future implementation under the 3MDG Fund.[3]

[3] The budget and estimated expenditure for the programme are presented in full in Annex F. The JI-MNCH Indicative Financial Status Report as of June 2013 is in Annex G.

Previous Page: Kay Htwel Oo, an Auxiliary Midwife, performs a health check on a newly born child in Da Min Daung Village.

14.

Fund Flow Mechanism

The FMO was responsible for holding, disbursing and monitoring the performance of the JI-MNCH fund. The Fund Manager called for expressions of interest and received proposals, which were evaluated before recommendations were made to the Steering Committee. Following successful grant awards, the Fund Manager was responsible for the administration of grant allocations, auditing and fund monitoring.

Programme funds were implemented under the framework of the EU Common Position on Myanmar and in-line with the existing practice of the 3 Diseases Fund. Funds flowed directly to UNOPS and IPs in order to support health activities at the township and community levels. Funding to IPs was through the Fund Manager and the IPs were selected based on proposal for health service delivery. A Service Agreement was signed between UNOPS and the implementing partner specifying the services to be provided and organizational obligations, annual work plan, detailed budget, payment mechanisms and audit, procurement and reporting arrangements.

IP budget and financial statements were made up of two parts: operation/management costs such as salaries for international and national technical and administrative staff, transport, and equipment; and the Joint Township Work Plan, which had costs relating to interventions at the township level.

Table (28) Grant budget: operational and township health plan

IP/ Township	Description	Total budget
Merlin (Labutta)	Operational Budget	1,493,952
	Joint Township Work Plan Budget	2,318,144
	Total budget	3,812,096
IOM (Bogale)	Operational Budget	1,558,090
	Joint Township Work Plan Budget	1,577,692
	Total budget	3,135,782
Relief International (Dedaye)	Operational Budget	713,090
	Joint Township Work Plan Budget	1,418,812
	Total budget	2,131,902
IOM (Mawlamyinegyun)	Operational Budget	588,234
	Joint Township Work Plan Budget	870,394
	Total budget	1,458,628
Save the Children (Middle Island)	Operational Budget	561,194
	Joint Township Work Plan Budget	889,456
	Total budget	1,450,650
MDM (Pyapon)	Operational Budget	519,857
	Joint Township Work Plan Budget	501,853
	Total budget	1,021,710

The funds distributed to IPs were used to reimburse health staff based on reports from outreach visits for example and as payment for training and meeting expenses. Procurement was done by IPs and no money went directly to the townships. Procured items were distributed by IPs directly to end users such as midwives and VHWs.

The programme model was expensive but when it was first established there was no alternative to the approach taken. Political and capacity constraints meant that operating through a range of IPs to deliver critical health services to the widely distributed population was the only realistic option. However, the environment is changing and the model established by the programme is unlikely to be sustainable at scale. In order to work with a large number of township medical officers, it would be more efficient – and better value for money – to find another way approach to deliver support.

Left: Community Health Worker Win Htun Hlaing gives a health education session in Tha Paung Village.

15. Auditing

Audits of the FMO formed part of the UNOPS Myanmar Audit throughout 2010-2012. UNOPS' Internal Audit and Investigations Group conducted the audits and no observations related to the JI-MNCH programme were recorded. All high priority observations were closed and so pose no risk to Donors.

The IPs were audited yearly between 2010-2012. Tables 30 and 31 show the tracking and progress in closing the audit recommendations. Recommendations will be closed by June 30 and a note for 3MDG will be prepared for further follow up.

The FMO tracked the 2010 audit recommendations and monitoring IPs' progress in closing the observations through monitoring in Yangon and in the field. The 2011 and 2012 audits were carried out in May 2012 so the monitoring will be handed over to 3MDG Fund for further tracking as part of the on-going partner assessment and monitoring.

Common audit observations during the duration of the programme included:

- Delayed submission of technical progress reports and financial reports.
- Delayed release of funds as a result of delays to submission of financial reports.
- Under or over utilisation of sub budget lines.
- Guidelines in place but not the management guidance and procedures to comply.
- Minor accounting and financial policy matters.

The audits for all IPs were rated Partial Satisfactory. Observations with financial implications for Donors will be closed before the programme ends as all ineligible expenditures will be deducted from the final disbursement to the IPs.

Table (29) 2010 IP Audit results

Summary status of implementation of Audit Observations	Audit report 2010	Open as of 01/06/2013
Total:	47	27
High	2	0
Medium:	19	11
Low	26	16
Closed:	20	0

Table (30) 2011 and 2012 IP Audit results

Summary status of implementation of Audit Observations	Audit report 2011/2012	Open as of 01/06/2013
Total	**69**	**69**
High	**2**	**0**
Medium	**37**	**37**
Low	**30**	**30**
Closed	**0**	**2**

Table (31) Observations from the 2011/2012 IP Audit

Category	**Observations**
Compliance	14
Guidelines/guidance	53
Resources	2
Area	**Observations**
Project management	7
Finance	26
Contract for Procurement of Goods and Services	12
Property management	11
Staffing/HR	12
Other	1

16.

Risk Assessment and Creation of an Enabling Environment

Ownership and Partnership

During the early months of implementation in 2010 the objectives and strategy of the JI-MNCH programme were unfamiliar to the health authorities. It was widely assumed to be similar to other health projects undertaken by INGOs where health services would be provided in parallel to formal government services. To advocate the health authorities, the FMO and IPs held a series of meetings at the central, regional and township levels to make the programme's goals and approach clear.

By working to expand existing government health services through joint implementation with IPs, sustainability was a strong feature of the programme from the start. This could only work because of the effort invested in collaboration and communication. The benefit was to build trust and deepen both the coordination of BHS, VHWs and local communities and their participation. Sharing information about project activities was essential to this goal and should be given first priority in future expansion.

Partnership at the township level was the most critical aspect of programme implementation. To encourage this further, visits were made by central and regional health officers and the FMO. While the partnership between health actors improved over time, engendering a sense of programme ownership took time to achieve. In future, this could be facilitated by reducing communication gaps between stakeholders both vertically and horizontally and by distributing clear guidelines. Currently, the success of programme activities in townships is too reliant on the disposition of the respective medical superintendents or township medical officers and the communication capacity of IPs. However, in those townships where they took ownership of the programme, they proved important to making programme goals realisable since they are in charge of township hospitals and control BHS.

Under the 3MDG Fund, strategies implemented during the JI-MNCH to foster ownership and partnerships should be expanded. This would require that the programme concepts, objectives, and approach programme be well disseminated to stakeholders at all levels through meetings in advance of activities being started.

IPs should be encouraged to share the financial details of the activities of the work-plan with their partners. Also details about the fund flow mechanism should be shared to aid in transparency and increase positive relationships between IPs and township health departments.

Insufficient Health Staff

The public health system is understaffed which had wide-ranging consequences on programme activities. At the township level, BHS vacancies were difficult to track and the high turnover of midwives, township medical officers and medical superintendents hindered the speed at which activities could be undertaken because it took time for new midwives and medical superintendents to understand the programme model and the new initiatives being undertaken. Encountering delays, IPs would often support activities and data collection but this led to misconceptions about the programme, such as the idea that the programme belonged to IPs and that they manage the township health department and BHS.

With transition of the programme into the 3MDG Fund, it is important to avoid such misconceptions and delays to programme activities. To do this, the continuation of staff development is needed by township health authorities, More township health officers and other programme support staff would improve management, finance and logistics, coordination and monitoring.

Throughout programme implementation there was a lack of specialist trainers from MOH, particularly in the areas of nutrition and health emergencies. With transition into the 3MDG Fund, increased technical support from the health authorities would be needed. A plan of activities and requirements detailing when, where and who could support activities could inform the 3MDG Fund and help strengthen the Regional Health Department.

A similar problem was faced in late 2011 and early 2012 when high turnover of experienced staff at IPs hindered implementation of activities. Since turnover of IP staff was recognised as a detriment to implementation, capacity building for IP staff should also be considered in future.

Sustainability

By supporting BHS through a coordinated health planning approach, the JI-MNCH programme contributed towards improvements in both the quality and accessibility of community health services. However, since programme support is not guaranteed longer term there is a need to focus on institutionalisation of activities and processes within the existing health system.

To achieve this, the programme already fostered partnerships between key health actors such as the DOH and IPs and encouraged township health authorities to take ownership of health plans. However, many activities were implemented directly by IPs through systems and structures that were project specific. Health stakeholders need to work within the CTHPs and under the leadership of the DOH but for this to work the capacity of regional and township level staff and private sector partners needs strengthening. Priority areas include technical, managerial and communications skills, together with increased recognition of the importance of accountability of all health staff to the users of services and the population more generally.

High-level leadership from Regional Health Directors and district/township medical officers is needed together with institutional development. One means of achieving this is to build on MOH plans and initiatives, in addition to linking health plans with comprehensive development plans. Specific sustainability efforts could focus on activities to sustain demand side initiatives such as VHWs, VHCs and community health financing initiatives.

Strategies for handover and exit should be considered from the beginning of all programmes and projects. Proper planning for exiting of existing grant activities should be integrated into the work plan.

Monitoring Volunteer Health Workers

The training of health volunteers requires close supervision and monitoring by health staff because in some cases this created unintended consequences in hard-to-reach areas. Attrition for health workers can start soon after they return to their village or after training. Some of the reasons given by volunteers were lack of income to sustain their livelihood, the need to move away to get a better income, inadequate skills and confidence, and less than expected demand for their services.

Some Voluntary Health Workers, especially in hard-to-reach villages reported providing servic-

es beyond their training such as childbirth care and injections. Effective roles and sustaining the functioning status of AMWs and CHWs in preventive care, childbirth and childhood illness could be sustained by revising selection criteria, strengthening support and supervision and task shifting to utilise their potential in providing treatment services in MNCH.

Strengthening and Sustaining Coordination

During Nargis response, coordination with all public and private partners was established in affected townships. As a result, it was possible to restore health services quickly and prevent outbreaks. Coordination was revitalised under the programme in Delta townships and was an important step in improving the quality and accessibility of community health services and providing a single platform for coordination among health actors. All health actors are required to participate in joint assessments, development of the CTHPs and coordination meetings.

Such coordination represents a shift from a vertical and isolated planning approach to one that is more horizontal and holistic. For this reason it provides valuable lessons for other agencies considering working in Myanmar.

However, a number of improvements could be made to strengthen and sustain coordination. The most important is that the DOH has a leadership role in bringing agencies together around the CTHPs. Other improvements would include the participation and collaboration of all health actors in the township; linking with other departments/initiatives; the use of data and indicators from the reports to provide feedback to health workers for the timely improvement of coverage and quality of services;

Left: Kay Htwel Oo, an Auxiliary Midwife, conducts MUAC measurements on children in Da Min Daung Village.

and reduction in delays for technical assistance. Finally, the coordination mechanism should be reviewed in order to strengthen it further since it represents the backbone of the partnership approach.

The public-private partnership approach under JI-MNCH can serve as a model for expansion elsewhere in the country. All townships would benefit from a systematic coordination mechanism between the public and private sectors to maximize the results of health services.

Standardisation of Policies, Strategies and Operation Procedures

When programme implementation started some policies, standard operating procedures and guidelines were in place but these proved inadequate or impractical for the implementation of some activities. So while the programme was based on a commissioned standard package of services, there was significant variability by IPs in how these services were provided. Considering many of the programme activities and initiatives were innovative and unfamiliar with stakeholders, the diverse approaches did serve to inform best practice.

However, finding a common approach for all partners that would ensure gains in service coverage and equitable allocation of resources was desirable. The development of JI-MNCH Standard Operating Procedures (Operational Guidelines) was crucial to the implementation effort across project townships and by all partners because they facilitated the achievement of specific results and narrowed down the various approaches taken.

Significant gains in this area remain to be achieved. For example, the implementation of activities such as nutrition, community level training in psychosocial health and support, health financing, child death audits, standard guidelines for ECC are all in need of update and revision.

Malnutrition

The prevalence of underweight children was 42% according to the Population-based Maternal and Child Health Survey. Of these children, 30% were moderately underweight and 11% were severely underweight. Wasting, which is low weight for height, was prevalent in 19%, of which 14% were moderately wasting and 5% were severely wasting. The prevalence rate of children stunting, which is low height for age, was 34%. Of these children, 20% were moderately stunting and 13% were severely stunting. Since malnutrition is related directly or indirectly to 30% of deaths in under five children, a review of this area is needed to improve practical interventions and develop linkages with broader sectors and initiatives, ideally, starting from the pre-pregnancy period.

While some aspects of child survival have non-health sector influences, such as poverty reduction, livelihood, and education for rural girls for example, several interventions within the health sector could be better elaborated as a package. BHS and VHWs were unable to provide effective counselling to caregivers, which should be based on anthropometric information and general health condition to address the root causes of under nutrition (i.e. hygiene, EPI, exclusive breastfeeding etc.). Referring cases to a hospital nutrition unit or offering cooking demonstrations may not be sufficient to address the actual problem.

Access to Essential Services for Hard-to-reach Areas and Populations

Barriers to the delivery of essential services for hard-to-reach areas and populations include seasonal population migration, unfavourable weather conditions and transportation access that is inadequate or expensive. Outreach services to hard-to-reach populations were mainly limited to EPI because few visits could be made mainly as a result of transportation cost. Support for travel would allow the frequency of visits to increase.

Findings from maternal and child deaths audits revealed a need to review the definition of hard-to-reach populations and revise approaches to scale-up coverage of them. The programme initiated an effort to achieve this.

Reaching MDGs four and five

At least 65% of reported maternal deaths and 20% of child deaths followed after care was sought with TBAs or unauthorised health practitioners. For child deaths, in 50% of cases, no treatment was sought whatsoever and in 70% of cases proper treatment was not provided. Yet despite the risk, unskilled practitioners are still trusted in communities over skilled practitioners for reasons of familiarity, custom and cost. This constrained efforts to increase safe delivery practices and limited the collection of information on live births and maternal and child mortality.

Since unskilled practitioners and village pharmacies have a significant impact on maternal and child health they should not be ignored. Rather, policy guidelines and strategies are needed to minimise the potential harm to mothers and children. Such an effort for TBAs was made to raise awareness of “Dos and Don’ts”, which was resumed by the programme following a ban for many years.

Coordination between BHS, VHWs, VTHCs and TBAs should be encouraged and regular awareness sessions for TBAs provided. TBAs should be encouraged through VTHCs to refer all pregnancies with danger signs and inform preterm and low birth weight newborns to midwives.

Lack of Funding for Health Infrastructure

A number of activities in the CTHPs were unfunded. For some activities, this was deliberate because they could be ‘piggy-backed’ on other activities but for others, such as the construction of RHCs and SRHCs, funding was not possible because of a lack of funds or the stance of donors on infrastructure development.

As these activities are necessary to the achievement of development goals for maternal, newborn and child health in the townships, ways and means should be explored to finance these activities. In some cases, collaboration between partners or ‘piggy-backing’ of activities may be the solution. Since MOH is reallocating budget for renovation and construction of RHCs and SRHCs according to needs, this may convince donors to provide more funding in this area.

Limited Availability and Validity of Data

The weakness of data collection and verification at all levels of health staff was a challenge to the obtainment of reliable health data. Some medical superintendents and township health staff were unprepared to share data at the regular meetings and some BHS were afraid to report actual data, particularly mortalities, because they perceived this would reflect poorly upon their performance. One step taken to resolve the broader problems affecting data collection was capacity building on the Health Management Information System that was given to all BHS to improve their data management skills. Stepwise data validation and verification practices were initiated and practiced. To encourage higher-level health staff to share data, it is recommended that an official permission letter be sent to the Township Health Department.

17.
Special Monitoring Visits

In July 2011 Vice President Dr Sai Mauk Kham visited Bogale where he observed training of CHWs.

In March 2012 a joint monitoring team made up of a MOH representative, donor representatives from DFID, AusAID, the Australian Embassy, UNOPS and IOM visited Bogale Township for two days to monitor programme activities and recommend improvements.

Between February and March 2012 the interim head of the human development department at DFID conducted a week-long review of the programme. The report concluded that the programme was innovative, reasonably good value for money and an important contributor to health outcomes in the project areas.

In February 2013 the UK Independent Commission for Aid Impact (ICAI) evaluated DFID's health programmes in Myanmar and selected the JI-MNCH data under the 3MDG Fund from January 2013 to be evaluated. The ICAI is responsible for the independent review of UK aid and reports to the UK parliamentary development committee.

Moe Min Thein's Story

Moe Min Thein became a Community Health Worker in Toan village in 2006. "In the past there was a lack of health knowledge in my village," he says, "and no one to rely on so the village asked me to join the training in Bogale."

"I'm very interested in providing healthcare for the people," adds the former army colonel, who offers health education and reports data like births and deaths to the midwife. Since there's no Auxiliary Midwife in the village, he also gathers women and children in readiness for midwife visits.

His efforts are paying off; people have better health knowledge than before and are more open to government services. "People would hide from vaccination activities but not any longer. In the past they lacked knowledge so were afraid of the pain their children would suffer from the injections. Some babies would get a fever but now people are aware of the benefits of vaccinations," he says.

The village had little trust in him at first but after organising health activities and helping people with minor injuries he thinks that trust has grown. He gives the example of a woman who was bleeding before her period. She wanted to stay in the village and use traditional medicine but he persuaded her and her family to find skilled assistance. She travelled to the township hospital where she received a blood transfusion and was later referred to Yangon for further treatment.

Moe Min Thein thinks there's still a lot to do in the village though. He finds it difficult to gather people for health education sessions during the harvest period because they're so busy and although the situation has improved for obstetric and child cases, many still prefer to treat snakebites with traditional medicine.

There are about 100 households in the village and of those, he says only about 15 could be considered wealthy. Many people work to cut nipa palm, which is used for roofing. This pays less than $1 per day so families can't always afford the cost of travel to hospital for health problems. The support for pregnant women and under-5 children means that even if a patient has no money they can receive free healthcare. "Because of the programme and health education, I think people have more trust in the health services," says Moe Min Thein.

18.

Transitioning the JI-MNCH into the 3MDG Fund

The JI-MNCH programme was funded for three years until December 2012 before being transitioned into the 3MDG Fund. This was to ensure continued delivery of health care services for women and children in the project areas and formed part of a strategy to ensure the sustainability of the programme and ensure an effective exit strategy. This decision was informed by a DFID independent annual review, which recommended the transition into the 3MDG Fund for a period of two to three years.

The FMO and partners developed a business case outlining why such a transition should take place and submitted it to the 3MDG Fund Board where it was approved in September 2012.

Inclusion of the JI-MNCH townships into the 3MDG Fund will offer the following benefits to stakeholders:

- A successful example of scaled-up implementation based on a model of township coordination and planning for new 3MDG townships,
- The opportunity to operationalise 3MDG delivery and support modalities such as fund flow mechanisms, procurement, with learning for all 3MDG townships,
- A significant contribution to 3MDG Fund results and national Millennium Development Goal targets, particularly in the initial years,
- A model of institutionalising support within township structures for longer-term sustainability of outcomes and a model for scaling back external support for all 3MDG townships,
- A positive advocacy message for donor governments, MOH and others on the value of 3MDG health funding,
- A source of best practice experience in delivery of MNCH through a partnership approach to support and continued momentum in health policy discussions at a critical juncture.

A well-managed strategy for the institutionalisation of the JI-MNCH programme and the withdrawal of external funds was critical to the longer-term success of partnerships between external and internal actors in the country. The opportunity to develop and pilot strategy in Delta townships presented a strong case for 3MDG Fund donors and stakeholders to support the inclusion of the Delta townships.

The transition timeframe ensured that the townships were ready to implement the modalities under the 3MDG Fund at the end of the transition period. To this end a “Roll in and transitional work plan” was developed by the FMO and partners that covered the period Jan-June 2013.

Zwet Htet Mhn’s Story

Zwet Htet Mhn (pictured right) was four months when he became ill with a fever. His mother Thant Thant Myint was worried and approached the midwife at the Set San Rural Health Centre. Concerned about Zwet Htet Mhn’s respiratory condition she referred him to the hospital where he received care and was discharged after five days.

Thant Thant Myint didn’t know the treatment would be free until the midwife informed her after Zwet Htet Mhn’s hospital admittance. To cover the costs, she had borrowed K20,000 from neighbours at an interest rate of K600 per day. In total, the drug and meal costs, plus a small donation to the hospital cost K30,000, which was refunded on the day of discharge. The only cost born by Thant Thant Myint was K2000 in interest payments on the initial sum borrowed.

19. Conclusion

The core objective of the three-year JI-MNCH programme was to increase access to essential maternal and child health services amongst hard-to-reach populations in areas most affected by Cyclone Nargis. This was achieved through enhanced provision of, and access to, quality basic maternal and child health care services, including nutrition and immunization. The programme also met the psychosocial needs of affected populations and helped to mitigate future risks through a focus on emergency preparedness.

At the end of the three-year grant period in December 2012, five IPs were implementing in six townships/project sites in Ayeyarwady Region and the programme covered 1.6 million people, including 40,830 pregnant and lactating women and 181,430 under five children. The following results were achieved:

- 32,317 under one children were vaccinated against measles in 2012.
- 33,766 children were given doses of diphtheria, pertussis and tetanus vaccinations in 2012.
- 19,084 newborns were delivered by skilled birth attendants.
- 37,772 pregnant women received two doses of tetanus vaccination.
- 10,039 emergency referrals were made to hospitals, including from poor and hard-to-reach populations, of which 6938 were made in 2012.
- 2871 malnourished children received nutrition support in 2012.

When the programme started, political and capacity constraints meant that operating through a range of IPs to deliver critical health services to the widely distributed population was the only realistic model of operation. This required a collaborative approach in which assessment, planning, implementation, and monitoring and evaluation were planned jointly by DOH and IPs throughout. Before JI-MNCH there was no mechanism to provide regular coordination between the township health departments and IPs but the establishment of coordination committees at the township level brought all health stakeholders together to create health plans, procedures and share information.

Coordination was tied closely with efforts to develop capacity, expand the coverage of VHWs, ensure regular feedback and results reporting, and maintain high levels of interest in community health by strengthening links with service providers. The coordination system also exposed IPs to the health system and its challenges, while exposing the Regional Health Department to the wider health system and community-based health activities.

The emergency referral system built upon the coordination mechanism to ensure timely referral of emergencies for life-saving treatment. The effort to establish and revitalise VHCs and create Village Trust Funds to support emergency care were key initiatives to ensure the long-term sustainability of the emergency system whilst also encouraging communities to work together to promote better community health outcomes, particularly in hard-to-reach areas.

The programme established a governance structure and simplified implementation through one pooled fund, one coordinated health plan and one monitoring and evaluation mechanism, and it standardised unit costs where possible. Midwives were supported to deliver an essential service package in outreach and hard-to-reach areas, which expanded health service coverage and VHWs were trained and supported with drugs and medical supplies. The capacity of BHS, VHWs, township health staff and TBAs was developed and mental health teams were trained. The programme also worked with townships to update Health Emergency Preparedness and Response Plans. Throughout, an effort was made to institutionalise activities and processes by encouraging township health authorities to assume ownership of the health plans. As the programme evolved the support and involvement of MOH at the central and regional levels did increase. This was evident in policy and technical guidelines, planning, training and field monitoring. In 2012, the programme expanded to increase birth spacing and exclusive breastfeeding.

The programme introduced a number of initiatives and innovations, the main ones being the emergency referral system, establishment of Village Tract Funds, death follow-up, unit cost analysis, and analyses of budget and expenditure to improve health plan costing. The FMO also facilitated studies to investigate ways of improving regular service coverage and quality, ensure the availability of essential MNCH services, and evaluate the community health financing mechanism, drug supply system, death auditing and emergency referral system. These studies were linked with other initiatives where possible and sought alignment with government policy and strategy and a focus on both supply and demand side interventions.

The various studies, not to mention the commissioned lessons learned exercise and Population-based Maternal and Child Health Survey, both of which were conducted in 2012, revealed a number of areas where future improvements would be possible. These include developing greater trust and transparency with the health authorities and ensuring greater ownership and oversight by the District Health Department; promoting more involvement by the Regional Health Department, which should take a stronger governance role; standardisation of tools and procedures, for example, a more comprehensive approach to training and skills development is needed together with follow-up monitoring to gauge the success of trainings; township initiatives need to be linked into broader policy discussions; and data management should be linked into supply chain management, to name just a few.

The overall cost-effectiveness of JI-MNCH was estimated as US$298 per DALY, which was less cost effective than WHO standards of US$150, but included the set-up costs of a very short programme and because of data limitations potentially underestimated the DALYs averted. Furthermore, the programme only incurred an additional spend of US$2.71 per capita per year. This seemed high for Myanmar since it was 68% more than the current health spend but it still represented a small amount compared with most other countries – even those with lower GDP per capita.

It is recognised that commissioning services from different INGOs, each of which provides the same package but in different ways and with significantly different costs, does not makes sense under current circumstances and would be unlikely to scale successfully as part of the 3MDG Fund. Nonetheless, in addition to succeeding in its objectives, the programme added significant value to the health system in project townships and its experience managing plans at the township level, cost analysis and documentation of lessons learned, provide much to consider for the 3MDG Fund, which is engaged in a lesson learning process to compare and contrast different models for supporting townships.

Programme staff would like to thank the donor countries, the Ministry of Health, WHO, UNICEF and Implementing Partners for their support towards improving maternal, newborn and child health in the Ayeyarwady Delta and look forward to the continued support for essential maternal and child health services through the 3MDG Fund.

Annexes

Annex (A) Training and workshops for Basic Health Staff

Central level

1. Workshop on up-scaling birth spacing
2. Reaching hard-to-reach populations with MNCH services

Regional level

1. Training of trainers on training management
2. Leadership and management
3. Training of trainers on at a Hospital Nutrition Unit
4. Comprehensive EmOC training
5. Reaching hard-to-reach populations with MNCH services
6. Training of trainers on mental health

Township Level

1. Infant and Young Child Feeding (IYCF)
2. Community-based management of acute malnutrition
3. Exclusive breast feeding and supplementary feeding
4. Integrated management of childhood illnesses
5. Integrated immunization
6. Psychosocial health refresher/ Mental health team training
7. Comprehensive Emergency Obstetric Care
8. Basic Emergency Obstetric Care
9. Pregnancy, child birth, neonatal and postnatal Care and essential newborn care
10. Quality reproductive health
11. Intrauterine contraceptive device (IUCD) insertion

Uncategorised

12. Health Management Information System (HMIS)
13. BCC
14. Early warning and reporting system (EWARS)
15. Training management and methods
16. Leadership, management and stress management
17. Community-based disaster management and preparedness
18. Reaching hard–to–reach populations with MNCH services

Annex (B) EmOC Referrals by Cause and Project Area in 2012

	Cause of EmOC referral	Bogale	Dedaye	Labutta	Mawlamy-inegyun	Ngapudaw	Pyapon	Total
1	**Prolonged/Ob-structed labour**	216	191	208	342	102	11	1070
2	**Eclampsia/PIH/Pre eclampsia**	166	97	90	130	30	31	544
3	**BOH**	85	66	37	66	27	4	285
4	**High head at term**	16	77	54	42	0	1	190
5	**Malpresentation/ abnormal lie**	56	19	34	49	8	10	176
6	**Abortion**	0	79	25	43	26	3	176
7	**APH**	49	30	35	34	8	8	164
8	**Post Date**	16	11	19	39	15	0	100
9	**Pregnancy with medical cases**	21	7	31	23	7	0	89
10	**Foetal distress**	0	17	65	0	4	0	86
11	**Maternal distress**	79		5	1	0	0	85
12	**PPH**	14	15	18	14	11	1	73
13	**Multipara**	0	0	0	72	0	0	72
14	**Twin pregnancy**	8	15	13	22	9	0	67
15	**Premature Rup-ture of Membrane**	49	0	0	15	0	0	64
16	**Retained placenta**	7	14	16	7	2	2	48
17	**Short stature**	2	12	6	18	0	0	38
18	**Intra uterine Foe-tal Death**	4	8	13	6	3	0	34
19	**Ectopic pregnancy**		5	7	2	0	3	17
20	**Sepsis**	1	1	9	3	1	2	17
21	**Others cases**	2	25	4	110	44	12	197
	Total	791	689	689	1038	297	88	3592

Annex (C) ECC Referrals by Cause and Project Area in 2012

	Cause of ECC referral	Bogale	Dedaye	Labutta	Mawlamy-inegyun	Ngapudaw	Pyapon	Total
1	**RIT, acute respiratory infection, pneumonia**	103	155	339	89	243	52	981
2	**Acute diarrhoea**	71	59	117	29	54	25	355
3	**Dengue haemorrhagic fever**	13	7	162	3	98	1	284
4	**Beriberi**	9	16	45	32	4	7	113
5	**Neonatal emergencies**	3	6	66	17	6	5	103
6	**Medical cases**	12	0	11	14	56	0	93
7	**Febrile Fits**	28	4	21	28	9	1	91
8	**Jaundice**	2	5	47	3	13	0	70
9	**Accidents and injuries**	10	9	19	11	14	0	63
10	**Malnutrition**	1		29	21	1	3	55
11	**Meningitis and encephalitis**	8	1	17	4	4	1	36
12	**Surgical cases**	5	0	8	11	1	0	25
13	**Others**	7	16	82	10	27	0	141
	Total	272	278	963	272	530	95	2410

Annex (D) Summary of the Population-based Maternal and Child Health Survey in 2012

MATERNAL HEALTH INDICATORS	Per cent
Antenatal care coverage:	
One or more visits	96.8
At least four visits	56.8
Proportion of pregnant women vaccinated against TT2+	87.2
Mothers receiving iron tablets during most recent pregnancy	87.7
Proportion of births attended by:	
Skilled personnel	47.2
Trained AMW	12.3
Traditional Birth Attendant	38.3
Deliveries:	
Home deliveries	72.1
Institutional deliveries	27.5
Percentage of women who received at least two postnatal care visits within 6 weeks of delivery by Skilled Birth Attendants	39.3
Mother received vitamin A within 6 weeks after birth	58.3
Maternal knowledge of two or more valid danger signs:	
During pregnancy	23.2
During delivery	27.6
During post partum period	33.2
In newborn	32.6
CHILD HEALTH INDICATORS	
Breastfeeding	
Child put to breast within first hour of birth	87.8
Child put to breast within first 24 hours of birth	97.1
Continued breastfeeding 6-23 months	27.5
Exclusive breastfeeding among 0-5 months of age	42.7
Growth Monitoring (Under five)	
Children with growth monitoring card (seen)	7.7
Children who received de-worming in the last 6 months	50.2
Child Anthropometry (6-59 months)	
Prevalence of wasted children	18.8
Prevalence of underweight children	42.3
Prevalence of stunted children	33.7
Immunization	
Children with vaccination card (seen)	35.4
Proportion of 12-23 month old children vaccinated against DPT3. (by card)	89.3
Proportion of 12-23 month old children vaccinated against DPT3. (by card and recall)	71.6

Proportion of 12-23 month old children vaccinated against measles. (by card)	74.5
Proportion of 12-23 month old children vaccinated against measles. (by card and recall)	83.5
Child with complete immunization coverage before their first birthday (by card)	69.7
Child receiving no immunizations	2.4
The child aged 6-11 months old received vitamin A	8.8
The child aged 12-59 months old received vitamin A	76.1
Care of illness	
Proportion of children 0-59 months with diarrhoea receiving appropriate oral rehydration therapy	65.2
Child with diarrhoea given zinc tablets	9.1
Proportion of children 0-59 months with pneumonia who treated with antibiotics	25.5
Maternal knowledge of two or more diarrhoea danger signs of children	34.0
Maternal knowledge of two or more severe signs of acute respiratory infection	23.9
Maternal knowledge of two or more danger signs to seek treatment in children	39.8
When the child got diarrhoea, he/she was given food:	
Stopped feeding	7.6
More than usual	3.1
Less than usual	57.5
FAMILY PLANNING HEALTH INDICATORS	
Contraceptive prevalence	79.4
Main form of contraception -Injectable	70.3
WATER INDICATORS	
Main source of drinking water:	
Dug Well/pond	77
Surface water	8.8
Rain water collection	7.1
Improved Water Source*	59.8
Percentage of population who treated drinking water	98.8
The most common method of treating drinking water is by straining it through a cloth	92.8

*This includes piped water, protected wells and protected springs.

Annex (E) Summary of Meetings

	Date	Venue
	Steering Committee	
1	May 19, 2010	Disease Control, Nay Pyi Taw
2	July 30, 2010	WHO Meeting Room
3	Oct 1, 2010	WHO Meeting Room
4	Oct 19, 2010	WHO Meeting Room
5	Nov 11, 2010	WHO Meeting Room
6	Dec 10, 2010	WHO Meeting Room
7	Jan 25, 2011	UNOPS Meeting Room
8	Mar 14, 2011	UNOPS Meeting Room
9	May 4, 2011	UNOPS Meeting Room
10	June 16, 2011	UNOPS Meeting Room
11	Aug 22, 2011	UNOPS Meeting Room
12	Oct 26, 2011	UNOPS Meeting Room
13	Dec 23, 2011	Amara Hotel, Nay Pyi Taw
14	Mar 14, 2012	Disease Control Complex DOH, Nay Pyi Taw
15	May 17, 2012	Amara Hotel, Nay Pyi Taw
16	June 27, 2012	Amara Hotel, Nay Pyi Taw
17	Sep 28, 2012	Royal Kumudra Hotel, Nay Pyi Taw
18	Dec 3, 2012	UNOPS Meeting Room
	Advisory Group	
1	Feb 9, 2010	WHO Conference Room
2	June 1, 2010	WHO Conference Room
3	Aug 13, 2010	WHO Conference Room
4	Sep 24, 2010	Royal Kumudra, Nay Pyi Taw
5	Dec 3, 2010	WHO Conference Room
6	March 1, 2011	Amara Hotel, Nay Pyi Taw
7	Dec 23, 2011	Amara Hotel, Nay Pyi Taw
	Regional Coordination	
1	June 28, 2010	Meeting Room, Divisional General Hospital, Pathein
2	March 24, 2011	Panda Hotel, Yangon
3	Feb 3, 2012	Myanmar Medical Association meeting hall, Pathein Township

Annex (F) Joint Initiative on MNCH - Indicative Financial Status Report as of 30 June 2011

1) Summary of Funding Received in US$		Commitments 2010	Received in 2010	Commitments 2011	Received in 2011	Commitments 2010-2011	Received as at 30.06.11
Sr.	Funding Source						
1	DFID	2,721,417	1,881,460	-	-	2,721,417	1,881,460
2	AusAID	926,620	926,620	2,517,003.00	743,905	3,443,623	1,670,525
3	Norway	1,669,273	1,669,273	-	-	1,669,273	1,669,273
4	Interest	-	10,277	-	-	-	10,277
	Total	**5,317,310**	**4,487,630**	**2,517,003**	**743,905**	**7,834,313**	**5,231,535**

		2010		2011				
2) Summary of Fund Expenditure in US$		**Budget 2010**	**Exp. 31.12.10**	**Budget 2011**	**Expend. 30.06.11**	**Budget 2010-2011**	**Expend. 2010-2011**	**Remarks**
Activity	Description							
1	Operation of the FM Office	341,144	153,391	486,537	115,779	827,681	269,170	
2	Programme costs (Grants to IPs)	5,420,000	2,196,192	4,500,000	325,157	9,920,000	2,521,349	Commitments as at 30.06.2011: US$ 4,860,227
3	Support to the Steering Committee	2,800	-	2,800	-	5,600	-	
4	UNICEF (Planned Under Pass-Through Funds)	56,526	-	-	-	56,526	-	
	Facilities & Administration	78,841	32,147	73,904	11,166	152,745	43,313	
	Total	5,899,311	2,381,730	5,063,241	452,102	10,962,551	2,833,832	

2.1) Details of Fund Expenditure in US$		**2010**		**2011**				
Activity	**Description**	**Budget 2010**	**Exp. 31.12.10**	**Budget 2011**	**Exp. 30.06.11**	**Budget 2010-2011**	**Expend. 2010-2011**	**Remarks**
1	Salary Costs - Staff	113,990	43,879	97,564	20,400	211,554	64,279	Not all staff were recruited in 2010 and those recruited were on ICA contract. Fund Executive was on-board with staff contract since Jan 11, monitoring and evaluation officer since Jan 11 and Operations Associate since Jun 11.
2	International Consultants	-	28,610	124,848	30,770	124,848	59,380	Costs of Intern. Consultant for Documenting LL have been budgeted (65,000 US$) in the budget line but no cost incurred yet as the consultant's visa request is still pending for approval by Government of Myanmar.
	Local Consultants	18,103	29,931	28,965	8,160	47,068	38,091	In 2010, all national personnel were on ICA contract. Since Jan 2011, only assistant and driver remain on ICA contract.

1	Travel	18,240	2,019	14,240	4,702	32,480	6,721	Budget exceeded actual expenses as less field missions by FMO took place.
1	Contractual Services - Companies	-	7,109	-	7,147	-	14,255	Car rental prior to the purchase of the office vehicle.
1	Equipment and Furniture	42,000	290	25,000	24,772	67,000	25,062	Purchase of the office vehicle was budgeted in 2010 but could not be purchased in 2010. It was then budgeted again in 2011 and procured in Jan 11.
1	Communications and Audio Visual Equipment	12,000	1,968	12,000	67	24,000	2,035	Communication cost (mostly for VSAT) will be charged at year-end.
1	Supplies	3,600	240	3,000	1,115	6,600	1,354	Budget exceeded actual expenses.
1	IT Equipment	13,000	9,791	4,000	63	17,000	9,854	Budget exceeded actual expenses.
1	Rental and Maintenance - Premises	26,100	14,400	26,100	11,942	52,200	26,342	2010 budget exceeded actual expenses
1	Rental and Maintenance of other equipment	20,400	390	20,400	1,298	40,800	1,688	No vehicle to maintain in 2010 and limited maintenance required in the first half of 2011.
1	Reimbursement costs	-	-	-	494	-	494	Expenses paid to other UNDP for services provided.
1	Professional Services	57,500	-	112,000	-	169,500	-	a) No audit and research costs in 2010. b) No research cost in 2011. c) Regional support for 2011 will be charged as part of the year-end closure process.
1	Audio Visual and Printing Production Costs	6,500	-	6,500	-	13,000	-	Reports printed at the office.
1	Miscellaneous Expenses	9,711	14,765	11,920	4,851	21,631	19,616	Expenses in line with budget
Subtotal Activity 1 - Operation of the FM Office		341,144	153,391	486,537	115,779	827,681	269,170	
2	Grants to Merlin	5,420,000	1,099,894	4,500,000	(274,974)	9,920,000	824,920	Disbursements reduced based on delays on implementation of the activities. Commitments as at 30.06.2011: US$ 4,860,227
2	Grants to IOM		858,661		600,131		1,458,792	
2	Grants to Save the Children		237,637				237,637	
2	Grants to Relief International		-				-	
2	Grants to MDM (France)		-				-	
Subtotal Activity 2 - Programme costs		5,420,000	2,196,192	4,500,000	325,157	9,920,000	2,521,349	
3	Management and Reporting Services	2,800	-	2,800	-	5,600	-	SC meetings were held at UNOPS or WHO meeting rooms without extra costs.
Subtotal Activity 3 - Support to the Steering Committee		2,800	-	2,800	-	5,600	-	

4	Contractual Services - Companies	53,982	-	-	-	53,982	-	UNICEF agreed to provide technical support to the program free of charge.
4	Travel	2,544	-	-	-	2,544	-	
Subtotal Activity 4 - UNICEF [Planned Under Pass-Through Funds		56,526	-	-	-	56,526	-	
	Facilities and Administration	78,841	32,147	73,904	11,166	152,745	43,313	
Subtotal Facilities and Administration		78,841	32,147	73,904	11,166	152,745	43,313	
	Total	5,899,311	2,381,730	5,063,241	452,102	10,962,551	2,833,832	
3) Funds available (in US$) as at 30 June 2011:							2,397,703	
*** Commitments for IPs Grants in US$:**								

IOM-Bogale (May 10 to Aug. 11) : 1,320,077; Merlin-Labutta (May 10 to Aug. 11): 1,374,866;
Save the Children-Middle Island (Nov. 10 to Nov. 11): 792,122; Relief International-Dedaye (Jun. 11 to Jun. 12): 1,373,162

Annex (G) JI-MNCH Results Matrix 2010-2012

Goal: Improve maternal and child health in the townships most affected by Cyclone Nargis

LogFrame Reference	Impact Indicators	2010 Target	2010 Achieved	Percentage	2011 Target	2011 Achieved	Percentage	2012 Target	2012 Achieved	Percentage	Total Target	Total Achieved
1	Proportion of malnourished children between 6 month to 5 years of age (Global Acute Malnutrition)	2%	Survey not done		2%	Survey not done		2%	18.8%		2%	18.8%
2	Number of unintended pregnancies averted	No data available			No data available			No data available				

Purpose: To increase access to essential maternal and child health services in the townships most affected by Cyclone Nargis

LogFrame Reference	Outcome Indicators	2010 Target	2010 Achieved	Percentage	2011 Target	2011 Achieved	Percentage	2012 Target	2012 Achieved	Percentage	Total Target	Total Achieved	Percentage
1	Proportion of births attended by (i) doctors, nurses or midwives (ii) AMWs												
	Percentage of births attended by skilled birth attendants (SBA)	5,552	4,836	45.2%	11,300	9,727	54.0%	17,628	19,084	61.9%	34,480	33,647	58%
	Percentage of births attended by trained personnel (AMW)	1,805	1,752	16.4%	3,064	2,699	15.0%	4,616	4,616	15.0%	9,485	9,067	16%
2	Proportion of one year old children vaccinated against diphtheria, pertussis and tetanus (DPT3)	19,681	19,885	85.9%	20,503	21,565	93.7%	35,791	33,766	95.9%	75,975	75,216	92%
3	Proportion of one year old children vaccinated against measles	18,524	19,204	82.9%	20,404	20,989	91.2%	35,358	32,317	91.8%	74,286	72,510	89%
4	Proportion of pregnant women vaccinated against tetanus toxoid	21,409	21,257	84.4%	22,185	23,941	96.0%	40,424	37,772	93.4%	84,018	82,970	92%
5	Outpatient visits per capita per year	0.5	0.17	No data available	0.8	0.6	75.0%	1.0	No data available		2010-2012 Cohort unavailable		
6	Proportion of children under 5 year with diarrhoea receiving oral rehydration therapy	60%	55%	109%	60%	97%	162%	63%	97%	154%	2010-2012 Cohort unavailable		
7	Proportion of children under 5 year with pneumonia who are treated correctly with antibiotics recommended by the national program (Disaggregated by male and female)	No data available			No data available			35-40%	No data available		2010-2012 Cohort unavailable		
8	Proportion of children less than six months of age exclusively breastfed	No data available			24%			No data available			20-22%	42.7%	

LogFrame Reference	Output Indicators	2010 Target	2010 Achieved	Percentage	2011 Target	2011 Achieved	Percentage	2012 Target	2012 Achieved	Percentage	Total Target	Total Achieved	Percentage
1.1	Number and percentage of Pregnant Women who received AN care one or more times	20,611	20,451	81%	21021	22824	91%	39,162	37,635	92%	80,794	80,910	86%
1.2	Proportion of RHCs / SRHCs with no stock out of antibiotics and ORS during last six months	100%	50%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%

1.3	Township supervision of RHCs by the supervisory team	108	18	17%	118	84	71%	180	150	83%	406	252	62%
1.4	Couple years of protection through birth spacing	No data available			No data available			No data available			No data available		
1.5	Number of referrals for EmOC & ECC	842	204	24%	2246	3113	139%	4,113	6,938	169%	7,201	10,039	139%
2.1	Coordinated Township Health JI-MNCH Plan in place	Yes	Yes	100%	Yes	Yes	100%	Yes	Yes	100%	Yes	Yes	100%
2.2	Number and % of township Health Coordinating Committee meeting conducted monthly	Yes	Yes	100%	Yes	Yes	100%	Yes	Yes	100%	Yes	100%	100%
2.3	Monthly Township Health JI-MNCH meeting conducted with BHS	16	16	100%	42	41	98%	60	68	113%	118	125	106%
2.4	Monthly RHC meetings with BHS and Volunteer Health Workers (VHW)	324	115	35%	352	352	100%	460	464	101%	1,136	931	82%
3.1	Number and percentage of BHS trained	175	172	98%	480	288	60%	480	2828	589%	1,135	3,288	290%
3.2	Number and percentage of AMW trained	93	43	No data available	183	162	88.5%	215	299	139%	491	504	102%
3.3	Number and percentage of CHW trained	73	74	101%	407	325	79.9%	427	437	102%	907	836	92%
3.4	Percentage of villages with AMW in Hard to Reach areas	Hard to Reach was not defined in 2010			138	73	35%	201	149	54%	274	149	54%
3.5	Percentage of villages with CHW in Hard to Reach areas				145	140	68%	211	231	84%	274	231	84%
3.6	Demand side interventions for improving access to MCH services for the very poor in place	No data available			No data available			No data available			No data available		
3.7	Development of strategy for Emergency Preparedness and Response	Labutta, Bogale			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun		
4.1	Pilot project introduced to increase access to health	Labutta, Bogale			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun		
4.2	Number and percentage of beneficiaries access to health in hard to reach areas (Disaggregated by sex)	No data available			99,012	89,474	90%	No data available			No data available		
5.1	Township Health Emergency Preparedness Plan in place	No data available			Dedaye			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun			Labutta, Bogale, Dedaye, Pyapon, Mawlamyinegyun		
5.2	Number and percentage of villages with emergency health plan in hard to reach areas	No data available			No data available			No data available			No data available		
6.1	Number and percentage of project reports and returns undergoing data validation by a team composed of basic health staff and Ips	No data available			No data available			No data available			No data available		
6.2	Percentage of Fund Manager annual work plan milestones achieved	11	9	82%	9	9	100%	9	9	100%	Operation and financial closures are planned for 2013.		

	Notes
*	Challenges with setting targets were reported by partners. Target setting will be made a priority under 3MDG Fund.
1	SBA - There is some data inconsistency in SBA achievements. LF and Annual Report data are not the same as project closure report data. Updated data is HMIS data. Data quality should be viewed with caution.
8	Cumulative data is from the 2012 endline survey for all townships.
1.1	Fluctuations in denominator data from the initial reporting period are due to changes in HMIS figures. In 2012, 2011 data was revised within the HMIS to report 997 fewer women receiving antenatal visits than initially reported. Further data quality assurance is required.
1.2	2010 Mawlamyinegyun data is unavailable. Cumulative total is the end of 2012 point in time figure.
1.5	Referral data may include non-EMOC and ECC referrals. Cumulative figure includes corrected data from 2010-2011. In 2010, 209 referrals were reported and in 2011, 2892 referrals were reported. Modifications to previously reported data has not been made, however the total has been adjusted.
1.5	Referral cases - Reported AR and Approved LF for 2010 is 204, and 2011 is 3113. Whereas actual data for 2011 is 2892, because a partner miscalculated in reporting.
3.2 & 3.3	AMW and CHW trained - Partners updated trained VHW achievement in the project closure reports, resulting in a data gap with previously reported annual report and approved log frame figures. In 2010, only Labutta and Bogale commenced VHW activity. 2010 figures trained by Partners, which started in late 2011 resulted in inconsistencies between the annual report and logframe data. Results include frequency data. Townships will be supported to develop improved training records under 3MDG.
3.4 & 3.5	Villages with VHW in hard-to-reach - Target set as percentage of total hard-to-reach villages, which changes throughout year. This brings some inconsistency between reported and project closure reports, as partners update the numbers of hard-to-reach. Percentage achieved is the achievement divided by the total number of hard-to-reach villages, which in 2011 was 207 and in 2011 was 274. A more systematic approach is required under 3MDG Fund. Cumulative results are 2012 point in time figures to avoid double counting of villages. 'Hard to Reach' has not been clearly defined and requires further definition.
6.1	Data quality assurance is being implemented under 3MDG in the Delta townships.

Annex (H) Translated IEC Posters

Annex (I) JI-MNCH Township Wide Results

PROJECT NAME	Joint Initiative on Maternal, Newborn and Child Health (Myanmar)					
IMPACT **Improved maternal and child health in the townships most affected by Cyclone Nargis**	Impact Indicator 1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of malnourished children between 6 month to 5 year of age (Global Acute Malnutrition)	Planned		Labutta: 2%, Bogale: 2%	Labutta: 2%, Bogale: 2%, Dedaye: 2%, Pyapon: 2%, Mawlamyinegyun: 2%	Labutta: 2%, Bogale: 2%, Dedaye: 2%, Pyapon: 2% Mawlamyinegyun: 2%
		Achieved	Labutta: 2%, Bogale: 2%	Survey not done for both Labutta and Bogale	Survey not done yet for all IPs	Labutta: 15%, Middle Island: 18.2%, Bogale: 15.3%, Dedaye: 14.7%, Pyapon: 39.7%, Mawlamyinegyun: 11%
			Source: Period Review IV Survey (July 2010)			
	Impact Indicator 2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Number of unintended pregnancies averted	Planned			NA	
		Achieved			NA	N/A
			Source: Survey Assumptions: 1) Sufficient funds committed to have a positive impact on health outcomes across affected areas 2) There is regular and good relationship between the government and donor consortiums 3) No further natural disasters happened 4) Political changes positively affect target beneficiaries' capability to benefit from high accessibility of MNCH services 5) No political interference in funding allocations 6) Sufficient human resource is available and retained long enough to have an impact on service quality			
OUTCOME **Increased access to essential maternal and child health services in the townships most affected by Cyclone Nargis**	Outcome Indicator 1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of births attended by (i) doctors, nurses or midwives (ii) AMWs	Planned		Labutta (i) 3547, 53% (ii) 1003, 15% Bogale (i) 2005, 50% (ii) 802, 20%	Labutta(i) 65% SBA (ii) 17% AMW Bogale (i) 62% SBA (ii) 20% AMW Dedaye (i) 53% SBA (ii) 12% AMW Pyapon (i) 60% SBA (ii) 7% AMW Mawlamyinegyun (i) 36% SBA (ii) 12% AMW	Labutta (i) 70% (ii) 19% Bogale (i) 65% (ii) 20% Dedaye (i) 55% (ii) 15% Pyapon (i) 64 % (ii) 10% Mawlamyinegyun (i) 40% (ii) 15 %
		Achieved	Labutta (i) 41% (ii) 13% Bogale (i) 41% (ii) 16.9%	Labutta (i) 4140, 61% (ii) 1019,15% Bogale (i) 2368, 57% (ii) 733, 17% Dedaye (i) 2044, 53% (ii) 424, 11% Pyapon (i) 2759, 58% (ii) 330, 7% Mawlamyinegyun (i) 2569, 34% (ii) 915,12%	Labutta (i) 4831, 53% SBA (ii) 1331, 15% AMW (Merlin 3871, 50% SBA, 1145, 15% AMW and Save the Children 960, 71% SBA, 186, 14% AMW) Bogale (i) 2905, 52% SBA (ii) 989, 18% AMW Dedaye (i) 1991, 60% SBA (ii) 379, 11% AMW	Labutta (i) 4444, (Merlin 3262, 43.6% MI 1182 79%) (ii) 18% (Labutta 1420,18%, Middle Island 288, 19%) Bogale (i) 2866, 52% (ii) 866, 16% Dedaye (i) 2113, 57% (ii) 626, 16% Pyapon (i) 6218, 68% (ii) 423, 6% Mawlamyinegyun (i) 3443, 42% (ii) 993, 17%
			Source: Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Outcome Indicator 2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of one year olds vaccinated against Diphtheria, Pertussis and Tetanus (DPT3)	Planned		Labutta 9538, 85% Bogale 6931, 85%	Labutta: 9699, 86% (Merlin 7945, 86% + Save the Children 1754, 86%), Bogale: 7201, 93%, Dedaye: 3603, 90%, Pyapon: 6670, 95%, Mawlamyinegyun: 6854, 90%	Labutta: 11293, 90%, Bogale: 7666, 94%, Dedaye: 3308, 93%, Pyapon: 6670, 95%, Mawlamyinegyun: 6854, 90%
		Achieved	Labutta 78% Bogale 78% PR IV	Labutta: 10756, 83%, Bogale: 7453, 92%, Dedaye: 3166, 89%, Pyapon: 6624, 94%, Mawlamyinegyun: 6827, 90%	Labutta: 10586, 94% (Merlin 8807, 95% + Save the Children 1779, 87%), Bogale: 7661, 99%, Dedaye: 3318, 83%	Labutta:9801 (Merlin 7850, 91% and Save the Children-Middle Island: 1951, 91%), Bogale: 7432, 96%, Dedaye: 3880, 95%, Pyapon: 6050, 92%, Mawlamyinegyun: 6603, 89%
			Source: (i) PR IV (ii) Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Outcome Indicator 3		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of one year olds vaccinated against measles	Planned		Labutta 8977, 80% Bogale 6524, 80%	Labutta: 9587, 85% (Merlin 7853, 85% and Save the Children 1734, 85%), Bogale: 7124, 92%, Dedaye: 3603, 90%, Pyapon: 6178, 88%, Mawlamyinegyun: 6854, 90%	Labutta: 11293, 90%, Bogale: 7584, 93%, Dedaye: 3308, 93%, Pyapon: 6319, 90%, Mawlamyinegyun: 6854, 90%
		Achieved	PR IV 89%	Labutta: 10406, 80%, Bogale: 7404, 91%, Dedaye: 3059, 86%, Pyapon: 6175, 88%, Mawlamyinegyun: 6435, 84%	Labutta: 10270, 91% (Merlin 8519, 92% and Save the Children 1751, 86%), Bogale: 7226, 93%, Dedaye: 3493, 87%	Labutta: 9376, (Merlin 7718, 90% and Save the Children-Middle Island: 1658, 77%), Bogale: 6868, 89%, Dedaye: 3617, 88%, Pyapon: 5722, 87%, Mawlamyinegyun: 6734, 90%
			Source: (i) PR IV (ii) Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Outcome Indicator 4		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of pregnant women vaccinated against tetanus toxoid	Planned		Labutta 11700, 85% Bogale 7836, 85%	Labutta: 10700, 87% (Merlin 8763, 87% and Save the Children 1937, 87%), Bogale: 7687, 91%, Dedaye: 3798, 90%, Pyapon: 7222, 94%, Mawlamyinegyun: 6647, 80%	Labutta: 13825, 90%, Bogale 8574, 93%, Dedaye: 3587, 93%, Pyapon: 7376, 96%, Mawlamyinegyun: 7063, 85%
		Achieved	PR IV 77%	Labutta: 11175, 81%, Bogale: 8231, 89%, Dedaye: 3433, 89%, Pyapon: 7200, 94%, Mawlamyinegyun: 7209, 87%	Labutta: 11718, 95% (Merlin 9679, 96% and Save the Children 2039, 92%), Bogale: 8224, 97%, Dedaye: 3999, 95%	Labutta: 10526 (Merlin 8628, 91% and Save the Children-Middle Island:1898, 80%), Bogale: 8525, 98%, Dedaye: 3998, 93%, Pyapon: 7064, 90%, Mawlamyinegyun: 7659, 94%
			Source: (i) PR IV (ii) Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			

	Outcome Indicator 5		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Outpatient visits per capita per year	Planned		0.5	Labutta: 0.3, Bogale: 0. 15, Dedaye: 1.7, Pyapon: 1, Mawlamyinegyun: 2	Labutta: 0.35, Bogale: 0. 15, Dedaye: 1.9, Pyapon: 1.25, Mawlamyinegyun: 2
		Achieved	PR IV 0.5	Labutta: 0.25, Bogale: 0.12, Dedaye: 1.7 HMIS, Pyapon: 1 HMIS, Mawlamyinegyun: 2 HMIS	Labutta: 0.3, (Merlin 0.3, Save the Children 0.2, Bogale: 0.19, Dedaye: 1.7	Labutta: 0.2, Bogale: 0.19, Dedaye: 1.7, Pyapon: 19.3, Mawlamyinegyun: N/A
			Source: (i) PR IV (ii) Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Outcome Indicator 6		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of children under 5 year with diarrhoea receiving oral rehydration therapy (Disaggregated by male and female)	Planned		Labutta:60%, Bogale: 55%	Labutta: 60%, Bogale: 60%, Dedaye: 60%, Pyapon: 55%, Mawlamyinegyun: 55%	Labutta: 65%, Bogale: 65%, Dedaye: 65%, Pyapon: 60%, Mawlamyinegyun: 60%
		Achieved	PR IV 55%	Labutta (i) 55% (ii) 97% Bogale (i) 55% (ii) 100% Dedaye (ii) 98% Pyapon (ii) 97% Mawlamyinegyun (ii) 100%	Labutta: 96% (Merlin 97%, Save the Children 95%), Bogale: 97%, Dedaye: 100%	Labutta: 95%, Bogale: 94%, Dedaye: 100%, Pyapon: N/A, Mawlamyinegyun: 96%
			Source: (i) PR IV (ii) Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Outcome Indicator 7		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of children under 5 year with pneumonia who are treated correctly with antibiotics recommended by the national program (Disaggregated by male and female)	Planned		NA	Labutta 35%, Bogale 35%, Dedaye 30%, Pyapon: N/A Mawlamyinegyun: N/A	Labutta: 40%, Bogale: 40%,Dedaye: 40%, Pyapon: 35% Mawlamyinegyun: 35%
		Achieved	NA	NA	NA	Labutta: 95%, Bogale: 96%, Dedaye: 110%, Pyapon: 88% Mawlamyinegyun: 67%
			Source: (i) PR IV (ii) Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Outcome Indicator 8		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of children less than six months of age exclusively breastfed	Planned		17.80%	Labutta: 20%, Bogale: 20%, Dedaye: 18%, Pyapon: 18%, Mawlamyinegyun: 18%	Labutta: 22%, Bogale: 22%, Dedaye: 20%, Pyapon: 20%, Mawlamyinegyun: 20%
		Achieved	17.80%	NA	23.6% (MICS 2009)	Labutta: 17%, Middle Island: 60%, Bogale: 49, Dedaye: 37%, Pyapon: 24%, Mawlamyinegyun: 74%
			Source: Multiple Indicator Cluster Survey (2009), (1) Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)			
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
	£4,950,000 ($7,500,000)			Ausaid: $3,440,000, Norway: $1,669,000	£7,900,000 ($12,600,000)	60%
INPUTS (HR)	DFID (FTEs)					
	5% Project Officer and 20% Health Adviser					
OUTPUT 1 **A minimum essential service package for MCH delivered**	Output Indicator 1.1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	The percentage of pregnant women who received antenatal care one or more times	Planned		Labutta: 11012, 80% Bogale: 7836, 85%	Labutta: 10085, 82% (Merlin 8259, 82% + Save the Children 1826, 82%), Bogale: 7349, 87%, Dedaye: 3587, 85%, Pyapon: 6454, 84%, Mawlamyinegyun: 7229, 87%	Labutta: 13507, 85%, Bogale: 8297, 90%, Dedaye:3356 87% Pyapon: 6607, 86% Mawlamyinegyun: 7395, 89%
		Achieved	Labutta: 86% (2008) Bogale: 82.7% (2 times) 40% (4 times)	Labutta: 10874, 79%, Bogale: 7836, 85%, Dedaye: 3201, 83%, Pyapon: 6454, 84%, Mawlamyinegyun: 7229, 87%	Labutta: 10921, 89% (Merlin 9217, 92% + Save the Children 1704, 77%), Bogale: 7894, 93%, Dedaye: 4009, 95%	Labutta: 10515, 92% (Merlin8733,92% MI: 1782, 75%), Bogale: 8787, 101%, Dedaye: 4006, 92%, Pyapon: 6668, 85% Mawlamyinegyun: 7659, 94%
			Source: Annual Evaluation of Community Health Care Program (2011) (Township HMIS)			
	Output Indicator 1.2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Proportion of RHCs/ sub-RHCs with no stock out of antibiotics and ORS during last six months	Planned		Labutta: 100% Bogale: 100%	Labutta:100%, Bogale:100%, Dedaye: 100%, Pyapon: 20% Mawlamyinegyun: N/A	Labutta: 100%, Bogale:100%, Dedaye: 100%, Pyapon: 100% Mawlamyinegyun: 100%
		Achieved	Labutta: 100% Bogale: 80%	Labutta: 100%, Bogale:100%, Dedaye: 0%, Pyapon: 20%, Mawlamyinegyun: N/A	Labutta: 100% (Merlin 100%, Save the Children 100%), Bogale: 100%, Dedaye: 100%	Labutta: 100%, Bogale: 100%, Dedaye: 100%, Pyapon: N/A, Mawlamyinegyun: 100%
			Source: Quarterly technical progress reports			
	Output Indicator 1.3		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Number of trips for RHC supervision conducted by a team consists of representatives from Township Health Committee, Township. Health Dept. and IP using a checklist for supervision	Planned		Labutta: 48 Bogale:36	Labutta:62 (Merlin 38 + Save the Children 24), Bogale:29, Dedaye: 27, Pyapon: 0, Mawlamyinegyun:4	Labutta: 72, Bogale: 24, Dedaye: 48, Pyapon: 12, Mawlamyinegyun: 24
		Achieved	Labutta:100% Bogale: 35%	Labutta: 8,17% Bogale:10, 27.8%	Labutta: 36 (58%) (Merlin 28 + Save the Children 8), Bogale: 20 (69%), Dedaye: 28 (104%)	Labutta: 31 (Merlin 27, Save the Children 4), Bogale: 33, Dedaye: 62, Pyapon: 11, Mawlamyinegyun: 13
			Source: Quarterly technical progress reports			
	Output Indicator 1.4		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Couple years of protection through birth spacing	Planned			NA	
		Achieved			NA	NA
			Source: Quarterly technical progress reports			

IMPACT WEIGHTING	Output Indicator 1.5		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
60%	Number of referrals for EmOC & ECC	Planned		Labutta: 308 Bogale: 336	Labutta: 1259 (Merlin 989 + Save the Children 270), Bogale: 587, Dedaye: 400, Pyapon: 0, Mawlamyinegyun: 0	Labutta: 1310 EmOC 600ECC, Bogale: 688, Dedaye: 400, Pyapon: 300, Mawlamyinegyun: 375 EmOC, 440 ECC
		Achieved	Labutta: 336, 3.8% MW 23, 5% AMW Bogale: 248, 4% MW, 35, 3.6% AMW	Labutta: 49, 16% Bogale: 155, 46% Dedaye: 50% ECC, (DOH could not get absolute figure) Pyapon: EmOC 426, 6%, ECC 73, 13% (HMIS) Mawlamyinegyun: EmOC 373, 4.43% ECC 38, 0.39% (HMIS)	Labutta: 1539 (122%) (Merlin 1010 + Save the Children 529) Bogale: 1165 (198%) Dedaye: 409 (102%)	Labutta Merlin: 1,652 (EmOC: 689, ECC: 963) Middle Island Save the Children: 827 (EmOC:297, ECC: 530) Bogale: 1111 (EmOC: 791, ECC: 272, Others: 48) Dedaye: 1681 (EmOC: 689, ECC: 278, Others: 714 Pyapon:316 (EmOC:88, ECC: 95, Others: 133) Mawlamyinegyun: 1351 (EmOC: 1038, ECC: 272, Others: 41)
	RISK RATING: Medium	Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)					
OUTPUT 2 **Effective delivery of MCH services through the Coordinated Township Health Plan**	Output Indicator 2.1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Coordinated Township Health Plan in place	Planned		Labutta: Yes, Bogale: Yes, Dedaye: Yes	Labutta: Yes, Bogale: Yes, Dedaye: Yes, Pyapon: Yes, Mawlamyinegyun: Yes	Labutta: Yes, Bogale: Yes, Dedaye: Yes, Pyapon: Yes, Mawlamyinegyun: Yes
		Achieved	NA	Labutta: Yes, Bogale: Yes, Dedaye: Yes	Labutta: Yes, Bogale: Yes, Dedaye: Yes	Labutta: Yes, Bogale: Yes, Dedaye: Yes, Pyapon: Yes, Mawlamyinegyun: Yes
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 2.2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Number and % of township Health Coordinating Committee meeting conducted monthly.	Planned		Labutta: 7 (supported by JI-MNCH) Bogale: 7 (supported by JI-MNCH)	Labutta: 12, Bogale: 12, Dedaye: 6, Pyapon: 2 Mawlamyinegyun: 2	Labutta: 12, Bogale: 12, Dedaye: 12, Pyapon: 12 Mawlamyinegyun: 12
		Achieved		Labutta: 7 (100%), Bogale: 7 (100%), Dedaye: 6, Pyapon: N/A, Mawlamyinegyun ; N/A	Labutta: 12, Bogale: 12, Dedaye: 5	Labutta: 10 (Merlin 7, Save the Children 3), Bogale: 12, Dedaye: 12, Pyapon: 14, Mawlamyinegyun: 12
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 2.3		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Number of Monthly Township Health Meeting conducted with BHS	Planned		Labutta: 12 (7 supported by JI-MNCH) Bogale: 12 (7 supported by JI-MNCH)	Labutta: 12, Bogale: 12, Dedaye: 6, Pyapon: 2, Mawlamyinegyun: 2	Labutta: 12, Bogale: 12, Dedaye: 12, Pyapon: 12, Mawlamyinegyun: 12
		Achieved	Labutta and Bogale: No monthly township Health PONREPP meeting conducted with BHS	Labutta: 7 (supported by JI-MNCH), Bogale 7 (supported by JI-MNCH), Dedaye: 12, Pyapon: N/A Mawlamyinegyun: 12	Labutta: 12 Bogale: 12 Dedaye: 5	Labutta: 12 (Middle Island: 12), Bogale: 12, Dedaye: 12, Pyapon: 3 Mawlamyinegyun: 12
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
IMPACT WEIGHTING	Output Indicator 2.4		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
10%	Number of monthly RHC meeting conducted with BHS and VHW	Planned		Labutta:132 Bogale:144	Labutta: 196 (Merlin 148 and Save the Children 48) Bogale: 108, Dedaye: 48, Pyapon: 6, Mawlamyinegyun: 24	Labutta: 204, Bogale: 108, Dedaye: 96, Pyapon: 72 Mawlamyinegyun: 144
		Achieved	Labutta and Bogale: No monthly RHC Health PONREPP meeting conducted with BHS but conduct RHC meeting with BHS monthly	Labutta: 64, Bogale: 51, Dedaye: 96, Pyapon: 64 Mawlamyinegyun: 126	Labutta: 196 (Merlin 148 + Save the Children 48) Bogale:108, Dedaye: 48 (with BHS monthly) 16 (with BHS and VHW quarterly)	Labutta: 228 (Merlin 180, Save the Children 48), Bogale: 108 Dedaye: 64, Pyapon: 60, Mawlamyinegyun: 135
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)					
OUTPUT 3 **Skilled human resource available for essential health services**	Output Indicator 3.1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Number and percentage of Basic Health Staff trained	Planned		Labutta: 88 Bogale: 87	Labutta: 135 (Merlin 108 and Save the Children 27), Bogale: 95, Dedaye: 74, Pyapon: 82, Mawlamyinegyun: 94	Labutta: 135 (Merlin 108, Save the Children 27), Bogale: 95 Dedaye: 74, Pyapon: 82, Mawlamyinegyun: 94
		Achieved		Labutta: 88 Bogale: 84	Labutta: 130, 96% (Merlin 102 and Save the Children 28) Bogale:86, 91%, Dedaye: 72, 97%	Labutta: 140 (Merlin 110, Save the Children 30) Bogale: 84, Dedaye: 72, Pyapon: 80, Mawlamyinegyun: 96
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 3.2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)

	Number of new AMW trained	Planned		Labutta: 25 Bogale: 18	Labutta: 67 (Merlin 25 and Save the Children 42) Bogale: 96, Dedaye: 20, Pyapon: 0, Mawlamyinegyun: 0	Labutta: 75 (Merlin 62 and Save the Children 13) Bogale: 29, Dedaye: 20, Pyapon: 51, Mawlamyinegyun: 40
		Achieved	Labutta, Bogale, Dedaye, Pyapon and Mawlamyinegyun: No training 2009	Labutta: 25, Bogale: 18, Dedaye:0, Pyapon: 15 trained by MDM, Mawlamyinegyun: 10	Labutta: 67 (Merlin 25 and Save the Children 42), Bogale: 75 Dedaye: 20	Labutta: 127 (Merlin 62 + Save the Children 65), Bogale: 31, Dedaye: 40, Pyapon: 51, Mawlamyinegyun: 50
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 3.3		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Number of new CHW trained	Planned		Labutta: 50 Bogale: 23	Labutta: 71 (Merlin 25 + Save the Children 46), Bogale: 269 Dedaye: 67, Pyapon: 0, Mawlamyinegyun: 0	Labutta: 41 (Merlin 26 + Save the Children 15), Bogale 120 Dedaye: 68, Pyapon: 25, Mawlamyinegyun: 60
		Achieved	Labutta: 0, Bogale: 0, Dedaye: 30 (2009), Pyapon: 44 (2009), Mawlamyinegyun: 30 (2009)	Labutta: 51, Bogale: 23, Dedaye: 0, Pyapon: 36 Mawlamyinegyun: 0	Labutta: 71 (Merlin 25 + Save the Children 46), Bogale: 187 Dedaye: 67	Labutta: 40 (Merlin 25 + Save the Children 56), Bogale: 192 Dedaye: 67, Pyapon: 22, Mawlamyinegyun: 75
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 3.4		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Percentage of villages with AMW in hard to reach areas	Planned		NA	Labutta: 70%, 22 villages (17 villages Merlin + 5 villages Save the Children) Bogale: 70%, 106 villages, Dedaye: 40%, 10 villages, Pyapon: 85%, 29 villages Mawlamyinegyun: 15%, 3 villages	Labutta: 80%, 26 villages Bogale: 80%,122 villages Dedaye: 40%,10 villages Pyapon: 97%, 33 villages Mawlamyinegyun: 50%, 10villages
		Achieved	NA	Labutta: no base lines Bogale: no base lines Dedaye: 17%, 4 villages Pyapon: 3%, 1 village Mawlamyinegyun: 15%, 3 villages	Labutta: 53%, 17 villages (10 villages Merlin + 7 villages Save the Children) Bogale: 35%, 52 villages Dedaye: 17%, 4 villages	Labutta Merlin: 54%, 14 villages Labutta MI Save the Children: 100%, 7 villages Bogale: 51%,77 villages Dedaye: 65%,15 villages Pyapon: 54%, 26 villages Mawlamyinegyun: 55%, 10 villages
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 3.5		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Percentage of villages with CHW in hard to reach areas	Planned		NA	Labutta: 70%, 22 villages (17 villages Merlin + 5 villages Save the Children) Bogale: 70%, 106 villages, Dedaye: 74%, 17 villages Pyapon: 82%, 28 villages Mawlamyinegyun: 20%, 4 villages	Labutta: 80%, 26 villages Bogale: 80%,122 villages Dedaye: 74%, 17 villages Pyapon: 100%, 34 villages Mawlamyinegyun: 60%, 12 villages
		Achieved	NA	Labutta and Bogale: No baseline, Dedaye: 17%, 4 villages, Pyapon: 82%, 28 villages, Mawlamyinegyun: 20%, 4 villages	Labutta: 78%, 25 villages (76%, 19 villages Merlin and 86%, 6 villages Save the Children), Bogale: 70%, 107 villages, Dedaye: 35%, 8 villages	Labutta Merlin: 73%, 19 villages, Labutta MI Save the Children: 100%, 7 villages, Bogale: 95%, 145 villages, Dedaye: 48%, 11 villages, Pyapon: 79%, 38 villages, Mawlamyinegyun: 61%, 12 villages
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
	Output Indicator 3.6		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Technical assistance to demand side interventions	Planned		Labutta and Bogale: Agreement by all partners on intervention design and plan Dedaye, Pyapon, Mawlamyinegyun: N/A	All project areas: Implementation and evaluation of demand side interventions	All project areas: Implementation and evaluation of demand side interventions
		Achieved	Labutta: N/A Bogale: N/A Dedaye: N/A Pyapon: N/A Mawlamyinegyun: N/A	Labutta: N/A Bogale: N/A Dedaye: N/A Pyapon: N/A Mawlamyinegyun: N/A	Demand side interventions under ongoing implementation	Labutta: Not started Middle Island, Bogale, Dedaye and Mawlamyinegyun: Ongoing implementation Pyapon: Not available
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
IMPACT WEIGHTING	Output Indicator 3.7		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
10%	Development of strategy for Emergency Preparedness and Response	Planned		Labutta and Bogale: Planning for strategy initiated	Labutta, Bogale, Dedaye, Pyapon and Mawlamyinegyun: Strategy developed and sustained	Labutta, Bogale, Dedaye, Pyapon and Mawlamyinegyun: Strategy developed and sustained
		Achieved	Labutta: N/A Bogale: N/A	Labutta: N/A Bogale: N/A	NA	Labutta: Not done Middle Island, Bogale, Dedaye and Mawlamyinegyun: Strategy developed and sustained, Pyapon: Not available
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)					

OUTPUT 4 **Demand side interventions to ensure the extremely vulnerable and poor have financial resources to access health**	Output Indicator 4.1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
	Pilot project introduced to increase access to health	Planned		Labutta: N/A Bogale: N/A Dedaye: N/A Pyapon: N/A Mawlamyinegyun: N/A	Labutta: N/A Bogale: N/A Dedaye: N/A Pyapon: N/A Mawlamyinegyun: N/A	Labutta, Bogale and Dedaye: To run full blown project in the townships by all partners Pyapon: To introduce and run pilot project in the township by all partners Mawlamyinegyun: To introduce and run pilot project in the township by all partners
		Achieved	Labutta: N/A, Bogale: N/A	Labutta: Pilot project introduced, Bogale: Pilot project introduced.	NA	Labutta: Not done, Middle Island: Not available, Bogale: Ongoing Dedaye, Pyapon and Mawlamyinegyun: Not available
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
IMPACT WEIGHTING	Output Indicator 4.2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
10%	Number and percentage of beneficiaries access to health in hard to reach areas (Disaggregated by sex)	Planned		Labutta: N/A, Bogale: N/A, Dedaye: N/A, Pyapon: N/A, Mawlamyinegyun: N/A	Labutta: 75%, Bogale: 75%, Dedaye: 75%, Pyapon: 75%, Mawlamyinegyun: 75%	Labutta: 80%, Bogale: 80%, Dedaye: 80%, Pyapon: 80%, Mawlamyinegyun: 80%
		Achieved	Labutta: N/A, Bogale: N/A	Labutta: No baseline, Bogale: No baseline	Labutta: 13942, 83% (7745, 73% Merlin and 6197, 100% Save the Children) Bogale: 72668, 100%, Dedaye: 2864, 30%	Labutta: Not available, Middle Island: Not available, Bogale: 100%, 72,668 Dedaye: 91%, 8,548, Pyapon: Not available, Mawlamyinegyun: Not available
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH) RISK RATING: Medium				
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)					
OUTPUT 5	Output Indicator 5.1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
Emergency Preparedness and Response	Township Health Emergency Preparedness Plan in place	Planned		NA	Design emergency disaster response and preparedness plan by Township Medical Officer and partners and dissemination in the project townships	Township Health Emergency Preparedness Plan in place at all townships
		Achieved	NA	Labutta and Bogale: Agreement by all partners on design and plan	NA	Labutta: Workshop completed, but plan not yet developed Middle Island, Bogale, Dedaye, Mawlamyinegyun: Plan developed Pyapon: Plan designed
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
IMPACT WEIGHTING	Output Indicator 5.2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
5%	Number and percentage of villages with emergency health plan in hard to reach areas	Planned	Labutta: N/A, Bogale: N/A	Labutta: N/A, Bogale: N/A	NA	Labutta: 75%, Bogale: 75%, Dedaye: 75%, Pyapon: 50%, Mawlamyinegyun: 75%
		Achieved				Labutta: 0%, Middle Island: 0%, Bogale: 0%, Dedaye: 100%, Pyapon: 0%, Mawlamyinegyun: 0%
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH)				
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)					
OUTPUT 6	Output Indicator 6.1		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
Fund management results in evidence to inform policy, funding and programming decisions	Number and percentage of project reports and returns undergoing data validation by a team composed of basic health staff and IPs	Planned		Labutta: N/A, Bogale: N/A, Dedaye: N/A, Pyapon: N/A, Mawlamyinegyun: N/A	Number of project reports and returns was 100% of sample in all project areas.	Number of project reports and returns was 100% of sample in all project areas.
		Achieved	Labutta: N/A Bogale: N/A	Labutta: No baseline Bogale: No baseline		Not available
		Source: Quarterly technical progress reports (2) Year 2 Plan (Joint Initiative for MNCH) RISK RATING: Medium				
IMPACT WEIGHTING	Output Indicator 6.2		June 2010 (Baseline)	2010 (Milestone)	2011 (Milestone)	2012 (Milestone)
5%	Percentage of Fund Manager annual work-plan milestones achieved	Planned		11	9	9
		Achieved		9 (82%)	9 (100%)	9 (100%)
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)					

Notes:

OC Indicator 1) Midwives only. Set Milestone and Target in percentage only as we can't estimate live births.

Formula: Proportion of births attended by doctors, nurses or midwives and AMWs = Number of live births attended by doctors, nurses or midwives and AMWs.

OC Indicator 7) This is a new indicator. Assume not more than 50% coverage if baseline data are collected and reported in quarterly report.

OP Indicator 1.1) Percentage of pregnant women who received antenatal care four times. This indicator will be conducted by baseline survey.

OP Indicator 2.3) 2011 Dedaye, Pyapon, Mawlamyinegyun milestones are supported by JI-MNCH, not included routing activities.

OP Indicator 3.4, 3.5) These are new indicators. Assume not more than 50% coverage if baseline data are collected and reported in quarterly report.

Sources of population data = HMIS 2010 report from Project Townships.

Save the Children has not developed Work Plan of r2012.

MDM planned six RHC meetings in Pyapon and IOM planned 24 RHC meetings in Mawlamyinegyun in 2011.

Dedaye: RHC meeting with BHS conducted monthly and RHC meeting with BHS and VHW conducted quarterly.