# Scaling Up Efforts to Roll Back Malaria in Mindanao Expansion and Consolidation Phase (2008-2011) Annual Report for 2010

## 1. Progress (activities/output, result, impact),

The goal of the RBM-ECP project is to contribute to a 50% reduction of malaria transmission, morbidity and mortality in high incidence provinces of Mindanao and the elimination of malaria from the Visayas by 2011.

### Present Malaria status:- National level

- 58 of 80 provinces are malaria endemic. 1 new province: Dinagat Island, ٠ CARAGA.
- 22 provinces are malaria-free
  - 16 provinces have maintained their malaria-free status as of 2007
  - 6 provinces have attained their malaria-free status is 2007
- Malaria morbidity is still the 9<sup>th</sup> leading cause of morbidity (FHSIS/NEC, 2006)
- 2007 data for Philippines

0	Cases:	36,235
0	Deaths:	73
0	Morbidity Rate:	41/100,000
0	Mortality Rate	0.08/100.000

- Montality Mate. o API: 3.11/1,000 population
- 2008 data for Philippines
  - Cases: 23,655 (35% reduction from 2007 cases)
  - o Deaths: 56 (30% reduction from 2007 deaths)
  - Morbidity Rate: 26/100.000
    - Mortality Rate: 0.06/100.000
    - o API: 1.91/1,000 population
- 2009 data from Philippines
  - o Cases: 19,955 (15.6% reduction from 2008)
  - o Deaths: 24 (57% reduction from 2008)
  - Morbidity Rate:Mortality Rate: 22/100.000
    - 0.03/100,000
  - o API: 1.7/1,000 population
- 2010 data from Philippines preliminary
  - Cases: 12,271 (38% reduction from 2009)
  - o Deaths: 15 (37% reduction from 2008 deaths)

#### RBM Project sites:-

The RBM-ECP focuses on intensified malaria control in highly endemic areas of Mindanao, Rizal Province and pre-elimination areas of the Visayas, and strengthening of national level coordination mechanisms and public-private partnerships.

The project is being implemented in ten (10) regions and 22 provinces. Region IX Zamboanga del Norte, Zamboanga del Sur

Region X	Bukidnon, Lanao del Norte
Region XI	Davao del Norte, Davao del Sur, Davao Oriental, Compostela
	Valley
Region XII	Sultan Kudarat, Saranggani
Region XIII	Agusan del Norte, Agusan del Sur, Surigao del Sur
ARMM	Lanao del Sur, Maguindanao, Sulu, Tawi-Tawi
Region IV-A	Rizal
RegionV	Camarines Norte is a recent addition as requested by DOH
Region VI	Antique, Negros Occidental

Provinces that were not receiving previous technical or financial assistance from donors or development partners are currently included in the extension phase 2008-2011.

# **Trends in Malaria Incidence in Target Provinces**

The RBM-ECP target provinces are listed in Table 1, together with their populations, reported malaria cases and deaths in 2007 and 2009, and the API per 1,000 endemic population in 2007.

The 16 provinces in Mindanao have among the highest incidence of malaria in the Philippines. Rizal Province in Luzon has been targeted for support due to its vulnerability to outbreaks of malaria and its proximity to metropolitan Manila. The Western Visayas are on the verge of malaria elimination, and the project focuses on the last three remaining malaria-prone provinces of that island group.

As of Jan 2011, the reporting completion rate was 59% (provisional total of 1651 malaria cases were reported in 2010, see Table 1) and a supplementary report documenting the situation and epidemiological analysis will be submitted later. It is noted that PhilMIS is yet to be installed in seven provinces – Lanao del Sur, Lanao del Norte, Maguindanao, Antique, Negros Occidental, Negros Oriental and Rizal provinces. These provinces are reporting manually which explain the delay in the submission of annual reports.

Figure 1 compares reported malaria cases and deaths in the 22 RBM-ECP supported provinces in Mindanao, Rizal and the Visayas with non-RBM-supported provinces since 2005.

A provisional total of 5,380 malaria cases have been reported from the RBM-supported provinces in 2009. This already represents a 54.5% reduction relative to the 2007 (i.e. pre-RBM-ECP) baseline of 11,829 cases, and 63.2% relative to the 5-year 2003-07 average. Over the same period, the total number of cases reported from non-RBM-supported provinces has fallen 41.4% (from 24,406 to 14,313), or 55% relative to the 2003-07 average. The reported number of malaria cases in the Philippines has fallen from 46,342 to 19,693 in 2009.

Deaths from malaria have also been in steep decline nationally, falling 92.3% in RBM-supported provinces and 55.3% in non-project provinces since 2005.

Although many factors may account for an overall reduction in malaria incidence and deaths, the RBM-supported provinces include those with among the highest incidence of malaria in the Philippines.

### Table 1: Provinces supported by RBM-ECP, with reported malaria incidence (2007) and cases and deaths (2010 compared with 2007)

Decier	Province	Population	2007			2010	
Region		(2007)	Cases	Deaths	API	Cases	Deaths
Mindanad	D						
IX	Zamboanga del Norte	907,238	55	0	0.15	2	0
	Zamboanga del Sur *	1,688,685	82	0	0.41	8	0
Х	Bukidnon *	1,190,284	145	0	0.80	76	1
	Lanao del Norte	846,329	9	0	0.08	NRY	NRY
	Misamis Oriental *	1,302,851	116	1	0.27	100	0
XI	Compostela Valley *	637,366	129	0	0.48	11	0
	Davao del Norte *	847,440	341	0	2.93	99	0
	Davao del Sur *	2,185,743	73	1	0.47	496	1
	Davao Oriental *	486,104	38	0	0.09	7	0
XII	Sarangani *	475,514	720	0	2.86	140	0
	Sultan Kudarat *	675,644	423	0	1.32	392	0
Caraga	Agusan del Norte *	612,405	149	0	1.08	32	0
	Agusan del Sur *	609,447	548	0	1.42	265	0
	Surigao del Sur *	541,347	322	2	1.61	23	0
ARMM	Lanao del Sur	1,138,544	_	_	_	<mark>0^</mark>	<mark>0^</mark>
	Maguindanao	1,532,868	260	0	1.16	<mark>236^</mark>	<mark>1^</mark>
	Sulu *	849,670	2,113	_	2.94	<mark>320^</mark>	<mark>1^</mark>
	Tawi-tawi *	450,346	5,062	22	14.03	<mark>2,095^</mark>	<mark>11^</mark>
Visayas							
VI	Antique	515,265	14	0	0.20	<mark>2^</mark>	<mark>0^</mark>
	Negros Occidental	2,869,766	11	0	0.28	<mark>2^</mark>	<mark>0^</mark>
VII	Negros Oriental	1,231,904	9	0	0.02	<mark>0^</mark>	<mark>0^</mark>
Luzon							
IV-A	Rizal *	2,284,046	1,210	0	7.71	<mark>534^</mark>	<mark>0^</mark>
V	Camarines Sur	535,200	16	0	0.02	<mark>2^</mark>	<mark>0^</mark>

\* Indicates provinces also supported by consolidated Global Fund malaria project

- Indicates data missing from available reports at time of Review

^ Indicates data were recently validated and reported to RBM in mid-2011. At the time of reporting PhilMIS has not been installed in seven provinces – Lanao del Norte, Lanao del Sur, Maguindanao, Antique, Negros Occidental, Negros Oriental, and Rizal provinces. These provinces were reporting manually and this has affected the timely submission of the annual reports.



Fig. 1. Comparing malaria cases and deaths in RBM and non-RBM areas from 2005 to 2010

# **1.1 Components and Outcomes:**

### 1.1.1 Component 1 – Support for Clinical and Public health Services for Malaria

**1.1.1.1. Outcome 1.1** – Improved quality and timeliness of diagnosis and provision of correct treatment at all levels, as per national guidelines

In the RBM sites, a WHO-SSA staff (Ms Arlene Santiago) facilitated and coordinated seven training workshops in basic malaria management, basic microscopy, rapid diagnostic tests (RDT) and refresher courses, see summary below. An External Competency Assessment (ECA) for Medtechs and validators which is an independent assessment to ensure high levels of diagnostic accuracy was conducted in Manila during 1-12 March, with a 52:48% (female: male) participation. Quality Assurance for Malaria Microscopy was also provided to project provinces.

Summary	of training	and QA	activities:-
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Training	Target	Accomplishment	Comments
	(b)	Attendance rate and Gender: No. males; no. of females	
1. Basic Malaria Management	25	24(96%)	Training conducted last Feb. 8-12, 2010 in Davao City. All RHM (rural health midwives) received certificate of training.

Source: NMCP, WHO

			1
TOP PUBLIC		24 (100%) females	
midwives			
2. Basic	30	27 (90%)	Conducted last June 29- July 1, 2010 in Davao City. All
Malaria		00(740) formula	participants received certificate of training
		20 (74%) female	
(Lanao del		7 (26%) male	
Norte and		. (_0,0)	
Lanao del Sur)			
2 Decie		07(04,00())	Conducted lost lon 04 to Eah 5, 2040 and March 45,20
3. Basic Malaria	32	27(84.3%)	Conducted last Jan. 24 to Feb 5, 2010 and March 15-26, 2010 at Marco Polo Hotel and Castle Peak 25/27 (92.6%)
Microscopy		26 (96.3%) females	passed and received certificate of training and attendance.
Training for		(	2/27(7.4%) were not able to meet the maximum requirement
Medical		1 (3.7%) male	of 80% rating and awarded certificate of attendance only.
Technologists			
of Davao			
Regions 6, 7			
and 8			
4 Defee alson	00	40(050()	Or a dust ad least Each 0.40, 2040 at Margar Data Ulated Davies
4. Refresher	20	19(95%)	City All Medical Technologists received certificate of training
Medical		17(89.5%) female	
Technologists			
of Davao		2(10.5%) male	
Region			
Severe Malaria	30	30 (100%)	Conducted last June 29- July 1, 2010 at Marco Polo Hotel
Management		/	Davao City. All participants received certificate of training.
Training for		20 (66.7%) female	
Physicians		10 (33.3%) male	
(Lanao del			
Norte and			
Maguindanao)			
Quality Assuran	ce		
External	24	23(96%)	ECA conducted last March 1-5, 2010 (1 <sup>st</sup> batch) and March 8-
Competency		12(529/) formalise	12, 2010 (2 <sup>th</sup> batch) at Orchid Garden Suites Hotel Manila.
(ECA) of a			(30.4%) got a level 2 assessment.
senior group of		11(48%)males	
malaria			
microscopists			
Orientation on	52	52(100%)	Orientation conducted last July 5-6, 2010 and Aug. 9-12
Quality	52	0=(10070)	2010 at AA Hotel, Puerto Princesa City and Regent Hotel,
Assurance			Naga City.
(Palawan and			
L			

Quality	
Assurance	126 microscopists (all trained)
Davao region (DDN, DDS,	34 brgy. Microscopists still functional
Comval and DDO)	Issues and findings:
	<ol> <li>3 municipalities do not have RHU medtech</li> <li>Some trained microscopists stopped rendering services due to lack of support from their local chiefs</li> <li>Some medtech are still untrained due to their unavailability on the scheduled training date.</li> <li>Municipality of Laak has only 1 BMM covering to 48 endemic brgy.</li> <li>The municipal validator who took charged of the 5 brgy. Microscopists in the municipality regioned from complex due to politically metivated reasoned.</li> </ol>
	<ol> <li>6. Medtech from referral provincial hospital refuses to undertake validation scheme for a reason of heavy load and understaffed.</li> <li>7. Delayed submission of slides for validation</li> <li>8. Longer time to finish the examination on EQA slides</li> <li>9. Microscopists and medtech under category 1 of the validation scheme did not submit</li> </ol>
	their BSMP on the agreed deadline.
	Recommendations to enhance Quality Assurance
	<ol> <li>Orient the microscopists on the revised QA system</li> <li>Improved scheduling system of reading the 20 slide panel</li> <li>Improve the feedbacking system by the validator</li> <li>Prepare more 20 slide panel for more simultaneous implementation of Scheme 3</li> <li>Lobbying the PHO of having on board PHO validator</li> </ol>
	<ul> <li>6. Microscopist must have a timetable for the timely submission of slides for validation</li> <li>7. Municipal level must have a systematic scheme on the submission of slides from the BMMC upto the validator's station.</li> </ul>
Quality Assurance for	48 microscopists (all trained)
ZAMBOPEN	Issues and findings:
	<ol> <li>Untrained MT's in private service providers and hospital based especially in non-GF areas.</li> </ol>
	<ol> <li>No clear guidleines in the provision of giemsa stain.</li> <li>Inadequate number of validators to cover the endemic provinces</li> <li>No QA scheme update orientation conducted.</li> </ol>
Other	Issues and findings on laboratory practices:
(reg. 2, reg. 3 palawan and	1. Smears submitted by the microscopists in Cat. 1 85% were of good smearing quality and 83% for good staining based on WHO standards.
	2. Wooden slide boxes contributed to the presence of artifacts in the smear.
	3. Tutorials and reviews on basic lab technique were conducted during on-site visit to the facility.
	4. Slide submission compliance declined on the 3 <sup>rd</sup> and 4 <sup>th</sup> quarters of the year, due to heavy work overload of the microscopists in other health programs, resulting in delays in submission of slide reports.
	5. Availability of transport among remote areas to the validation center is one of the factors
	6

	affecting the delay of slides and reports.
	6. Refresher course for Medtechs would reinforce microscopy skills in correct diagnosis of parasites especially in areas where malaria cases are rarely seen or at very low frequency.
	7. PHO of ComVal sponsored the conduct of the annual Provincial Malaria Assurance meeting.
Procurement	RBM procured 16 units of stereoscopes for IVM in collaborating center and additional 20 units of binocular microscope for project expansion sites

# Outcome 1.2 – Timely malaria epidemic detection and response, and the prevention of mortality during outbreaks

In 2010, two outbreaks were reported by CHDs to WHO; the details are as follows -

Rizal (Region 4A) – as of Apr 17, 99 malaria cases were reported, representing 120% increase compared to 2009. Foci affected were areas bordering Caloocan and Quezon city.

*Davao City* – there was a reported outbreak of 277 cases in June, 2010 affecting Bgys of Paquibato and Gumitan, Marilog district. Active case detection surveys resulted in 645 slides collected, 183 confirmed cases (168 Pf, 12 Pv and 3 mixed infections), 28.4% positivity rate and all cases were successfully treated. The outbreak response measures implemented by the DOH-CHD Davao team and community volunteers comprised indoor residual spraying on 100 houses, stream clearing and followups, health education and IEC to 645 residents, and distribution of 400 long lasting bednets to the community.

There was probably a missed opportunity for early detection of this outbreak (which resulted in a fatality) as the laboratory at the nearby non-government hospital did not, at that time, conduct routine epidemiological analysis of malaria microscopy data.<sup>1</sup>

The CHD Davao team also provided training to the rural health midwives on basic malaria management, severe malaria management, orientation of the current drug policy, basic laboratory techniques to volunteers and BHWs. Collaborative plans with the Davao City Health office included: a) cross-border operations with Bukidnon province through the RMC of Northern Mindanao; coordination with the German hospital in Buda Marilog district; follow-up case finding and treatment for 3 months, orientation of BHWs and the private sector.

#### Outcome1.3 – Elimination of malaria from Rizal and Visayas

Major interventions were scaled up in Rizal province – distribution of 3343 ITNs to four municipalities (insecticide-treated nets, see Table 2 below) and Urbani School Health kits (see Outcome 2.2, pg 9).

Table 2. Numbers of nets distributed by Municipality in Rizal, 2010

Distribution of LLIN-Rizal Province (RBM Areas)					
Municipality	Bgy.	Sitio	Number of Net Distributed		

<sup>1</sup> The Region XI CHD Malaria Microscopy Validator visited this laboratory with the reviewer to initiate QA activities for staff. The reviewer provided guidance in data management for laboratory staff at the same time.

Angono	San Isidro	Labahan (loob & labas)	125
Angono	San Isidro	Tagavisacol	175
Angono	San Isidro	Constellation Creek Side	150
Angono	San Isidro	Purok III Creek Side	100
Angono	San Roque	Manggahan	330
Angono	San Roque	Villa Angelina	100
Angono	San Roque	Dayap	311
Angono	San Roque	Paraisol	156
Taytay	Dolores	Pyramid	140
Taytay	San Juan	Pugad Lawin	37
Binagonan	Darangan	St. Monique	120
Baras	San Jose	Malalim	60
Baras	San Jose	Putik	40
Taytay	San Juan	Malaking Parang	256
Taytay	Dolores	Hapay na Mangga Gate II Maharlika	443
Taytay	Dolores	Carrera Heights	96
Taytay	Dolores	Purok I Creek Side	288
Taytay	Dolores	Hapay na Mangga Purok II	416
	Grand	3,343	

# 1.1.2 Component 2 – Support for Prevention of Malaria among Most at risk populations (MARPs)

# 1.1.2.1 Outcome 2.1: Increased LLIN coverage among Most At Risk Populations (MARP)

A total of 4,467 Olyset nets<sup>2</sup> were supplied from the epidemic stockpile in CHD-Davao, see Table below. RBM and Global Fund bednet distributions are directed to the Provincial and Municipal/City Health offices. Data on the gender breakdown of the recipients have not been received as yet.

Table 3 – RBM nets distribution In Davao City for 2010

Municipality/City/Province	Nets Distributed
Jose Abad Santos(JAS), Davao del	720
Sur(assistance to outbreak)	
Governor Generoso, Davao Oriental	400
Laak, Compostela Valley	200

<sup>&</sup>lt;sup>2</sup> Olyset<sup>™</sup> netting is made out of wide-meshed high-density polyethylene in which the insecticide (permethrin) is incorporated directly into the fibre at a 2% weight/weight concentration (corresponding to 1 gram/m<sup>2</sup> surface concentration. Olyset<sup>™</sup> nets are also very strong because of their thick fibres (equivalent to 180 deniers) and the strength of high-density polyethylene

Davao del Norte	400
CHO, Davao City	200
Maguindanao	2,000
Marilog District, Davao City	400
Paquibato District, Davao City	147
Total	4,467

Source of Data: CHD-Davao Epidemic Stockpile Inventory Report 2010

# 1.1.1.2. Outcome 2.2. Increased community awareness of malaria, specifically targeting school children

The RBM pilot project provided a significant input into the development of the modules addressing worm infestation and vector-borne diseases.

The Urbani School Health Kit (USHK) has been implemented since 2007. Now on its 4<sup>th</sup> year, the recipient Province is Rizal. The distribution and training of teachers were targeted in low income resource community and malaria endemic areas in Rizal province. Two sets of USHK were sent to forty (40) schools (See Annex 4). One hundred fifty (150) teachers and forty (40) school heads/principals, and twenty (20) health officials from the Department of Education Health Division offices participated in the workshops on how to use the USHK in the classroom.

Teachers were invited to an orientation workshop to learn about the learning objectives and resource materials contained in the USHK. They were asked to demonstrate the uses of the USHK and encouraged to be creative in integrating the use of the USHK to the subjects they were teaching like Science and Health, Values Education and Home Economics.



Participants to the USHK Orientation in Rizal Province

There were two orientation workshops conducted. The first was in Antipolo City on June 24, 2010 and the second was in the Department of Education Regional Office in Rizal on November 24, 2010. The second workshop was attended by 12 school health nurses in Rizal who became part of the monitoring team. There were also 10 Health Officers from various schools in Korea and 2 from the Ministry of Health of Korea who were brought by the WHO-WPRO as observers.

The Department of Education School Health Division Offices in Antipolo and Rizal were also mobilized as partners in the implementation, monitoring and evaluation of the project.

Schoolteachers who attended the orientation agreed to use the USHK and keep a record of their classroom activities. They were asked to do self-evaluation and to prepare for an interview to provide their views on how to improve the content and use of the USHK.

During the monitoring and assessment, 32 teachers from 6 schools in Antipolo and 10 schools in Rizal were visited to demonstrate the use of the USHK. Results showed that the teachers rated well on the class demonstration with average rating scale of 4.17 (rating scale of 0-5 with 5 as the highest).

The cited best part of the experience includes the following:

- 1. Increased level of cooperation/participation;
- 2. High mastery of the lesson/topic;
- 3. Children enjoyed learning;
- 4. Teaching with ease because of the availability of instructional materials;
- 5. Children were well motivated.

Parts of the module that required improvement include:

- 1. Translation in Filipino and/or in local dialect for better understanding; and
- 2. More time to prepare for the lessons and integration of the USHK.



School children during use of USHK in classroom

In 2010, the RBM-ECP have supported the production and distribution of 80 Urbani School

Health kits<sup>3</sup> reaching 54,890 students in Antique and Rizal province, see Annex 1.

Together, the original RBM project and the RBM-ECP have supported the production, training of teacher's on how to use the kit, and distribution of two USHKs to 133 primary schools in project's Mindanao provinces, Palawan, and Butuan, Davao and Zamboanga Cities (Table below), potentially reaching 43,556 students.

Region	Province	Number			
IV-B	Palawan	12			
XI	Davao del Norte *	10			
	Davao del Sur *	15			
	Davao Oriental *	11			
XII	Sarangani *	18			
	Sultan Kudarat *	19			
Chartere	Chartered City				
Butuan C	Sity	20			
Davao Ci	ity	8			
Zamboar	nga City	20			

# Table 4. Number of schools receiving Urbani School Health Kits, by location (region / province or chartered city), from USHK introduction to June 2010.

On 7 Oct 2010, Ms Sheila Bonito of UP Open Learning University provided a seminar presentation of the Urbani School Health kit – piloting, evaluation ad expansion in the Philippines" to the WHO Regional office staff, WHO Regional Director, the Health Education and Promotion Office of DOH, NGOs responsible for "Fit for School" and Save the Children Fund International. See Annex 3 for the presentation. This was followed by a general discussion on opportunities for collaboration and expansion/extension of school programmes in the Philippines and other WPR countries.

In collaboration with WHO HQ, development of eLearning course on dengue targeting high school students in malaria and dengue-endemic areas is in progress, see Annex 4 for the dengue content. The eLearning course which provide an enrichment course in science, health and environment, could also be used as reference material for teachers in teaching health and environment.

<sup>&</sup>lt;sup>3</sup> The Urbani School Health Kit is a WHO integrated package containing materials that support health education and health promotion activities in schools. The kit strives to provide a healthy environment, health education, and health services in schools, along with community projects, while it provides multiple opportunities for success and recreation. It encourages teachers to be champions of health promotion, to start with a positive enquiring and caring attitude to find out about the most important health problems in the community, to be a role model for health promotion, to advocate the creation of supportive environments in schools that will encourage children to make healthy choices, and to develop creative ways to help children understand the importance of healthy living and to take action to improve their own health.

### 1.1.1.3. Outcome 2.3. Integrated Health service for Indigenous and non-Indigenous populations

Updates provided by the UN Office for the Coordination of Humanitarian Affairs (OCHA) addressing the ongoing humanitarian situation in Mindanao are as follows:

11 Jun 2010 – flooding caused localized and temporary displacement in the municipalities of Sultan Mastura and Sultan Kudarat in Maguindanao. The situation is returning to normal. However with the rainy season approaching, more flooding may be expected – these will affect malaria transmission.

26 July 2010 – reports of 400 dengue cases since January 2010, mostly affecting children. The Essential Health Care Program was launched in the Municipality of Salvador catering all functional day care centres, in response to the Health Summit prioritizing health issues and needs by the PLGU.

9 August 2010 – the surveillance team of DoH-ARMM has investigated the reported outbreak of Dengue fever in Lanao del Sur and Marawi. In these locations, from January to July of this year, a total of 523 suspected cases were reported along with 184 cases of Typhoid fever. The majority of cases were reported from seven clinics and hospitals in Marawi, while only three clinics in Lanao del Sur reported cases. Below is the summary of Dengue cases by province in the ARMM areas (Source: RESU ARMM Report, August 2010). Sulu has no available data from April this year due to lack of accessibility owing to security issues.

Province	Jan	Feb	Mar	Apr	May	Jun	Jul	Total
Lanao del Sur LDS)	8	9	17	25	37	95	5	196
Marawai City (MC)	25	12	16	26	31	120	97	327
Maguindanao (Mag	15	15	21	15	47	40	13	166
Sulu (Sulu)	47	26	28					
Tawi Tawi (Tawi)	12	12	4	5	1	6	10	50
Total	107	74	86	71	116	261	125	739

A comparative summary of dengue incidence is shown in Fig 2 below. Except for Tawi-Tawi, all provinces reported an increase of more than double the number of cases seen last year while table above shows the peak distribution of cases from May to July 2010.

Fig 2. Comparing dengue incidence from 2009 and 2010.



**1.1.3 Component 3. Integrated Management of the National Malaria Control Program** - Strengthened coordination, projection, planning management and evaluation of malaria control and prevention in the Philippines.

### 1.1.3.1. Outcome 3.1 – Integrated work plan incorporating inputs of all partners

WHO engaged a local consultant to assist DOH and facilitate the development of the Malaria Program Medium Term Plan (MPMTP) in line with the MDG target by 2015, and in preparation for country-wide elimination by 2020. A workshop held on Mar 23-26, 2010 discussed the stratification of provinces among 17 regions, the strategies of MTMSTP and a unified (integrated) monitoring and evaluation plan. The RBM integrated workplan was also shared with DOH and stakeholders. An assessment checklist was used to facilitate provincial and regional validators and program coordinators to assess the QA, stratification and M&E components, including analysis of questions and templates of slides for the plenary presentation, see Annex 5. The output was a malaria medium term development plan from the vision to policy direction, goal, objectives, strategies, performance indicators and major activities (see Annex 6) which was discussed at the TWG meeting on Nov. 18. The final consultation with CHDs was held on 1-3 Dec to agree on the basis of classification of the endemic areas and the medium term development plan.

In an interview with Dr Robert Newman, director of the WHO Global Malaria Programme (GMP), it was stated that eradicating malaria will take 40 years or more to achieve (Bull World Health Organ 2011; 89: 10-11, Annex 7), the vision of a malaria-free Philippines by 2020 may need to be revised. A conservative estimate would be 2035 depending on the resolution of armed conflicts and social disturbances in affected areas of ARMM.

A workshop on Gender Mainstreaming in Health was held in Tagaytay City from 14 to 16 September 2010. The objectives were to: a) improve the awareness of the participants on gender and health, and b) building the participants' skills to conduct gender analysis and to develop gender-responsive actions. Workshops participants were staff of DOH in the malaria, neglected and tropical diseases and policy units, see Annex 8.

On 14-15 Oct, WHO staff attended the annual Mindanao Stakeholders' meeting in Cebu to update all stakeholders on the progress of health-related projects and ways to unify and harmonize development efforts in Mindanao.

In collaboration with ACTMalaria, WHO conducted a bi-regional Integrated Vector Management <sup>4</sup> TOT training was conducted with the aim of developing in-country entomologists and team equipped with the necessary knowledge and skills to support capacity building and application of IVM approach, Annex 9. The workshop was hosted and held in Trader's Hotel and DOH grounds, Manila from Oct 4-15, 2010, financed by USAID-Asia (for participants from Indonesia, Thailand, Cambodia, Malaysia, VietNam) and by WHO (for four entomologists from Philippines), and in collaboration and technical support from Hudsons Asia Inc and Vestergaard-Frandsen. The content of the training workshop was based on the WHO handbook on IVM released on 30 Sep 2010, and this activity is part of a plan to enhance the capacity in IVM in the Western Pacific region including the Philippines.

Facilitators and resource people included Dr Jeffrey Hii, WHO Malaria Scientist (WR Philippines country office), WHO Scientist from VEM HQ, Drs Raman Velayudhan and Kazuyo Ichimori (Scientists, Vector Ecology and Management, Dept Control of Neglected Tropical Diseases, HQ) and WHO technical staff, DOH, CHD Zambales, and the private sector.

On the last day of the workshop, capacity building needs of the participating countries were assessed during the plenary, as well as the next steps to be taken after the workshop. The participants reached and agreed on the following conclusions and recommendations:

- 1. Establish an IVM focal point and network to advocate for IVM in the MOH
- 2. Strengthen IVM skills amongst staff of the regions.
- 3. Organize follow-up workshops on IVM
- 4. Introduce IVM strategy with emphasis in capacity building at regional and national level.

### 1.1.3.2. Outcome 3.2 – Integrated monitoring and performance assessment

During monitoring visits (Annex 10), Ms HoneyLin Gempeshaw-Todavia and Jeunessa Sto Nino (WHO SSA staff) provided training for 5 encoders and 18 orientations in the implementation of PhilMIS, Annex 11. The status of PhilMIS<sup>5</sup> is shown in Annex 12. As of reporting time, 15 RBM-supported provinces are implementing PhilMIS. However, only 46.6% (7 out of 15) of the encoders are *plantilla* (regular employees) at the Provincial Health Offices and DOH, 26.6%(4 out of 15) encoders are on Job Order or Casual basis, while the other 26.6% are project hired.

PhilMIS reporting is significantly affected by the availability of encoders. It is notable that provinces with PhilMIS encoders submit prompt and complete reports. However, non-renewal of Job Order/casual/project-hired encoders may significantly compromise the timeliness and quality of reporting. Coordination and lobbying with the LGUS with no regularly-employed PhilMIS encoders is being undertaken to solicit their commitment to provide a regular staff for PhilMIS data entry.

<sup>&</sup>lt;sup>4</sup> The basic principles of IVM are outlined in the Global Strategic Framework on IVM (<u>http://www.who.int/gmp/eng. In 2008</u>, WHO issues a position statement on IVM to support the advancement of the concept as a component in vector-borne diseases control. The global strategic plan on IVM emphasized the urgent need for capacity building, while the global action plan on IVM proposed the development of a comprehensive modular training package on IVM, from which this training has adopted.

<sup>&</sup>lt;sup>5</sup> PhilMIS: Philippine Malaria Information System was developed by the Department of Health (DoH) through the National Epidemiology Center (NEC) to provide information in a computerized form needed for planning, implementation, monitoring and evaluation of malaria control program; and to standardize the collection of malaria data using the same reporting and recording forms in malaria endemic provinces.

PhilMIS Standard Operating Guidelines was reviewed and revised to align with the GOP-Malaria Operations Manual. Draft of the SOG was circulated to the members of PhilMIS subcommittee for further review and approval. The PhilMIS software is also being prepared for revisions to accommodate additional indicators as required by the revised SOG. Coordination meetings are being undertaken between WHO, DOH, NEC-FETPAFI for the software revision.

A contract was awarded to an NGO Peace and Equity Foundation (PEF)<sup>6</sup> to develop and produce maps at national and sub-national level showing the provinces endemic for Neglected Tropical Diseases and Malaria and the association with the poverty incidence in the country.

The accomplishment of the disease endemicity and prevalence mapping activity (despite being heavily resource-constrained) is a first step towards the goal of effective elimination and control. Mapping provides crucial information for any elimination and control strategy and is an important IVM strategy. Integrated prevalence maps of malaria and NTDs play a crucial role in enabling decision makers take collective action in addressing the health issues in poverty stricken areas. This would be an effective tool for the community, government agencies and other implementing partners in planning cost-efficient as well as effective interventions and systematic program/project implementations in the endemic areas.

An Independent Progress Review of the RBM-ECP was conducted in July-August 2010. Its principal objectives were: 1) to review progress to date on RBM-ECP activities; and 2) to assess the degree to which the initiative is consistent with current guidance on development effectiveness. The Review also examined the use of available resources during the remainder of the project, including the future direction and scope of any expansion activities and whether a time extension might be needed.

Three recommendations for a no-cost extension were made, see below.

- An 18-month no-cost extension for the RBM-ECP is recommended. This will extend AUD 2.501 million in support across 2.5 years (i.e. July 2010 to December 2012) instead of one year, still allow adequate resources to support accelerated interventions in the Visayas and Rizal Province (as per previous recommendations), and align AusAID inputs with the Government of the Philippines financial and planning year (i.e. the calendar year). It will also allow more time to review opportunities for future Australian support once the national Malaria Medium Term Strategic Plan 2010-15 and the WHO IVM support facility are in place.
- 2) Given the emerging priority of dengue for the Philippines, the great potential to leverage off lessons learned from malaria control, the relatively low level of expenditure of the Year 3 RBM-ECP budget and the additional resources available for 2011-12, it is strongly recommended that Objective 2 is expanded in scope to include IVM and integrated approaches to disease control and elimination (as per current DOH policy), and that the balance in the budget for Objectives 1, 2 and 3 is adjusted accordingly.
- 3) During 2011, AusAID and WHO should review: a) progress under the expanded focus for the RBM-ECP, and b) opportunities for mobilising additional resources for integrated disease prevention and elimination approaches, including in urban and peri-urban areas, under the new Australia–Philippines Development Assistance Strategy.

<sup>&</sup>lt;sup>6</sup> PEF has a current working relationship with the Department of Health, specifically on the Neglected Tropical Diseases (NTD). It is the only organization in the country that develops and produces poverty maps in the country. The organization has a competent and professional staff and wide network of professionals with expertise in geographical information system and map designing.

In prioritizing dengue as an emerging disease, DOH has requested WHO to demonstrate the effectiveness of IVM in the assessment of clusters where dengue has been observed to occur and in its applications in the prevention and control of dengue in the community. WHO will ensure that context of implementation is retained as vector control interventions directed against malaria vectors has concomitant effect on dengue vectors. For example, indoor residual spraying and insecticide-treated bednets have dual protection against daytime dengue vectors and night time Anopheles mosquitoes in areas where the two diseases are co-endemic or co-occur.

WHO's mandate is to assist DOH in developing an overarching IVM policy from which a revision of a dengue policy will be undertaken and pilot studies conducted in any of the four regions that participated in the IIVM TOT training in September 2010, see section 1.1.3.1, Outcome 3.1.

WHO staff provided technical inputs and facilitated the process of compiling country data for the World Malaria Report 2010 (see <u>http://www.who.int/gmp/</u>), including a study on malaria financing and expenditure in collaboration with the University of Philippines.

## 1.1.3.3 Outcome 3.3 – Operational Research

Operational research initiatives on the field effectiveness of long-lasting insecticidal mosquito nets (LNs), ways to manage expired LNs and insecticide resistance monitoring were discussed with CHD-Davao and RITM staff. The WHO guideline for monitoring durability of LNs under operational conditions was shared with partners for their comments. WHO plays an important role in the adaptation and independent monitoring and evaluation of this protocol as there is lack of information regarding country-specific experiences with durability of LNs and their longevity.

At the CCM meeting<sup>7</sup> on 2 Dec, Dr J Hii explained that the procedures used by large-scale long-lasting insecticidal (LN) procurement by some agencies and donors implicitly assume that any technical differences between WHOPES-recommended products are negligible, and require that procurement decisions must be based on delivery deadline and differences in price, which are often rather narrow. National malaria control programmes planning for long term coverage with LNs need information on the comparative durability of different LN products in local settings, for the following reasons: a) programmes and agencies have to choose which products they should procure and whether or not in their country settings, particular products are likely to perform better than others; b) knowledge of the expected rates of loss over time of LN after distribution is needed in order to estimate the necessary rate of replacement through continuous distribution systems and the appropriate interval between campaigns; c) there is clear evidence that users do distinguish between LN products and that usage of these products is affected by their preferences. A system is needed to enable these differences to be taken into account in procurement

## 1.1.3.4 Outcome 3.4 – Philippines Malaria Network

The RBM-ECP has worked closely with the Philippines Movement Against Malaria (KLM), and one of the project's SSA staff members is co-located with the Philippines Malaria Network on the DOH campus.

The Network itself has a governing board, and is registered as a foundation in the Philippines. Its Mission is to ... consolidate and strengthen efforts and resources through sustained publicprivate collaborations and partnerships in order to reduce the burden of malaria.

<sup>&</sup>lt;sup>7</sup> CC is Country Coordinating Mechanism which is a management requirement for GF countries

Its Goals are strongly guided by those of the NMCP and are therefore – in theory – completely harmonised with the RBM-ECP: 1) to halt and reverse the incidence of malaria by 2015; 2) to eliminate malaria by 2020; and 3) to sustain a malaria-free Philippines<sup>8</sup>.

Since a more aggressive advocacy campaign<sup>9</sup> is needed to encourage more commitment to support malaria elimination, WHO staff participated and presented a paper on "Enhancing business sector response to malaria elimination" at a private sector consultation forum organised by PMN on 27 April in Davao. The outcome was the signing of a commitment to fight and eliminate malaria, see Annex 14. Subsequently, a second Davao Regional partnership forum for malaria elimination met on 27 July, see Annex 15 for the highlights of the forum.

### **Outcome 3.5 – Risk Monitoring and Management**

Risk monitoring and management is applied in several ways such as:

1) support for planning and implementation of integrated 'border operations' addressing the malaria and other primary care and disease control needs of remote and vulnerable populations, including piloting these approaches in areas where they have not yet been used but where there may be a significant mobile population living in or moving through remote areas.

2) maintain its awareness of opportunities for collaborative implementation of activities with other UN agencies and NGO partners in ARMM, through the the WHO Philippines EHA focal point in Cotabato City,

3) plans to engage a National Project Officer to be based in Cotabato or Davao City, to facilitate implementation of project activities and to monitor and assist with NMCP inputs and logistics in ARMM (and more broadly in Mindanao).

4) a joint review – on a regular basis – of risks and delays to implementing project activities in support of the national Program, and develop approaches to managing those risks and delays.

5) compliance of United Nations security requirements for working in unstable and conflict affected areas of Mindanao.

The project provided UN Department of Safety and Security (UNDSS) relevant information and project activities in Luzon, Mindanao and Visayas on 4 Mar 2010. The aim is to support the Security Risk Assessment (SRA) and the design of risk mitigation measures to ensure safety and security of staff carrying out program activities in the field.

<sup>&</sup>lt;sup>8</sup> Strategic approaches of PMN are based around 6 priority areas: a) education and information to raise the awareness of malaria among the public and community based organisations; b) capability-building for local health providers and leaders; c) outreach to promote wider coverage of malaria diagnosis and treatment among vulnerable populations; d) creation of an information hub on malaria, including collation of local, national and international research data and resources; e) support services for health workers and volunteers (including livelihood training programs and a microcredit facility); and f) resource mobilisation.

<sup>&</sup>lt;sup>9</sup> The World Health Organization has included the private sector in its Roll Back Malaria strategy, but has noted that it is notoriously difficult to change private sector practices without burdening the governments of developing countries. For instance private drug outlets have grown increasingly important as the main source of malaria treatment for residents of malaria endemic areas. Unfortunately, the quality of information and the quantity and quality of drugs provided is often deficient. Therefore, aggressive campaigns are needed to advocate to the private sector in malaria prevention.

Risk mitigation strategies in Mindanao areas include:

- 1. Bringing health staff from conflict zones or Phase 3 areas to Davao City for training workshops and briefings, including coordination with Pilipinas Shell Foundation Inc malaria project staff in Sulu and Tawi-Tawi;
- 2. Travel in MOSS compliant vehicle if a UNFPA vehicle is available, otherwise WHO staff travel in DOH government vehicles and carry Satphones;
- 3. Regular updates on the humanitarian situation, Philippines Mindanao response issued by OCHA office in Manila. Each update include highlights/key priorities, situation overview of the conflict – displacement, humanitarian needs and responses – food, WASH, camp coordination and NFI, education, nutrition, health, early recovery, protection, child protection, coordination, funding, contact details;
- 4. Posting of monthly Mindanao Humanitarian meetings schedule;
- 5. Two project staff attended a Safe and Secure Approaches in Field Environment (SSAFE) training at Tagaytay and Cavite Ternate Marine base from 25 to 27 May 2010. The aim of the training is to provide UN staff with the knowledge and skills to enhance their safety and security in a Phase III security environment, see Annex 16.

An Independent Progress Review of the RBM-ECP was conducted in July-August 2010. Its principal objectives were: 1) to review progress to date on RBM-ECP activities; and 2) to assess the degree to which the initiative is consistent with current guidance on development effectiveness. The Review also examined the use of available resources during the remainder of the project, including the future direction and scope of any expansion activities and whether a time extension might be needed.

Consultations were held with NMCP and WHO managers and counterparts in Manila and NMCP implementing partners in Davao City, the provinces of Davao Oriental, Palawan and Rizal, and the administrative headquarters of the Autonomous Region of Muslim Mindanao (ARMM).

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Annex 2. Distribution of Urbani School Health Kits, Antique and Rizal provinces

Annex 3. Distribution of Urbani School Health Kits, Mindanao

Annex 4. Content of the dengue module, eHealth learning.

Annex 5. Checklist of the Assessment of the Malaria Prevention and Control Program Quality Assurance, Stratification, Monitoring and Evaluation Components

Annex 6. Assessment report of the national Malaria control programme

- Annex 7. Interview with Dr Robert Newman, WHO GMP Director.
- Annex 8. Gender mainstreaming training report

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Annex 10. PhilMIS monitoring visits conducted by SSA staff in 2010.

- Annex 11. PhilMIS meetings, trainings and orientations conducted in 2010
- Annex 12. PhilMIS activities in Jan Jun 2010

Annex 13. Malaria stratification by City/Province, in Mindanao Region, 2010

Annex 14. Private sector forum – signing of commitment Annex 15. Highlights of the second Malaria forum, Davao 17 July 2010 Annex 16. SSAFE course information brochure

Design	RBM Provinces	No. of cas with P	ses diag Iasmodi	No. of c	confirmed ases	
Region		species:				
		Pf	Pv	Pm	Male	Female
10	1. Bukidnon*	62	13	1	59	17
10	2. Misamis Oriental	100	0	0	57	43
11	4. Davao Oriental	0	7	0	7	0
	5. Davao del Norte*	57	41	1	64	35
	6. Davao del Sur	496	0	0	256	240
	7. Compostela Valley	6	5	0	4	7
12	8. Sarangani*	119	22	0	63	77
12	9. Sultan Kudarat*	284	102	6	260	132
	10. Agusan del Sur*	109	157	0	205	60
Caraga	11. Agusan del Norte	27	5	0	15	17
	12. Surigao del Sur	22	1	0	12	11
	13. Tawi-Tawi*	1090	329	0	874	645
	14. Sulu*	192	102	3	192	108
ARIVIIVI	15. Maguindanao	Na	Na	Na	Na	Na
	16. Lanao del Sur	Na	Na	Na	Na	Na
9	17. Zamboanga del Norte	1	1	0	2	0
	18. Zamboanga del Sibugay	5	5	0	8	0
4B	19. Rizal	225	1	0	143	83
	20. Antique	Na	Na	Na	Na	Na
Visavas	21. Negros Occidental	Na	Na	Na	Na	Na
	22. Negros Oriental	Na	Na	Na	Na	Na
	Total (RBM areas)					
				1		

Annex 1 – Plasmodium infections and gender distribution of malaria cases among reporting RBM provinces

 $^{*}$  this includes 26 cases with mixed (Pf + Pv) infections; Pf:Pv:Pm ratio is 74.4 % - 25% - 0.6%

\*\* Male:Female ratio is 0.59:0.41

#	Province/Citv	Name of School	Student Population
1	Antipolo Citv	Boso-Boso Elementary School	940
2		Canumay Elementary School	148
3		Calawis Elementary School	621
4	-	Dalig Elementary School	608
5		Inuman/Inarawan Elementary School	1136
6	-	Juan Sumulong Elementary School	1400
7	-	Kaila Elementary School	1534
8		Kaysakat Elementary School	570
9	-	Libis Elementary School	102
10		Lores Elementary School	3223
11	-	Pantay Elementary School	560
12	-	San Antonio Village Elementary School	1725
13		San Ysiro Elementary School	106
14		Sapinit Elementary School	711
15	Angono	Angono Elementary School	3533
16		Dona Justina Guido Elementary School	839
17	Baras	Paenaan Elementary School	1022
18	Binangonan	Dona Susana Madrigal Memorial	2708
		Elementary School	
19		Mabuhay Homes Elementary School	1450
20		Tagpos Elementary School	870
21		Tayuman Elementary School	2619
22	Cainta	St Anthony Elementary School	1400
23	Rodriguez	Macabud Elementary School	582
24		Puray Elementary School	349
25		San Isidro Elementary School	3277
26		San Jose Elementary School	3984
27		San Rafael Elementary School	2652
28		Wawa Elementary School	923
29	San Mateo	Patiis Elementary School	358
30		Pintong Bucaue Elementary School	454
31		Silangan Elementary School	2764
32	Tanay	Daraetan Elementary School	540
33		Sta Ines Elementary School	285
34		Sto Nino Elementary School	183
35		Tablon Elementary School	377
36	Taytay	Dolores Elementary School	1889
37		Hapay na Mangga Elementary School	699
38		Muzon Elementary School	2442
39		San Juan Elementary School	2261
40		Sitio Tapayan Elementary School	3046
		Total	54.890

Annex 2 – Distribution of Urbani School Health Kits, Antique and Rizal provinces, 2010.

Annex 3 – Distribution of Urbani School Health kits, Mindanao

	List of schools cove targeted students	ered by Urbani kits along v	with the nu	imber of
S. No	School	Address	No of Students	Province
1	Cabaywa ES	Cabaywa, Davao de Norte	287	DDN
2	Florida ES	Florida, Davao del Norte	427	DDN
3	Semong ES	Semong, Davao del Norte	469	DDN
4	Tibi Tibi ES	Tibi-tibi, Sto. Niño, Davao del Norte	280	DDN
5	Carcor ES	Carcor, Davao del Norte	163	DDN
6	Pinamuno ES	Pinamuno, Davao del Norte	264	DDN
7	Cebulano ES	Cebulano, Davao del Norte	351	DDN
8	Magupising ES	Magupising, Davao del Norte	249	DDN
9	Lunga-og ES	Lunga-og, Davao del Norte	691	DDN
10	New Visayas ES	New Visayas, Davao del Norte	250	DDN
11	New Clarin ES	New Clarin, Davao del Sur	440	DDS
12	Kinuskusan ES	Kinuskusan, Davao del Sur	307	DDS
13	Apolinario R. Fuentes ES	Kibuaya, Davao del Sur	285	DDS
14	Balutakay ES	Balutakay, Davao del Sur	195	DDS
15	Guihing CES	Guihing, Davao del Sur	1300	DDS
16	Kasuga ES	Kasuga, Davao del Sur	255	DDS
17	New Ilocos ES	New Ilocos, Davao del Sur	169	DDS
18	Sinawilan ES	Sinawilan, Davao del Sur	558	DDS
19	Sulatorio ES	Kauswagan, Davao del Sur	200	DDS
20	Padada South ES	Lapu-lapu St. NCO Dist., Davao del Sur	475	DDS
21	Inawayan ES	Inawayan, davao del Sur	849	DDS

22	Tuban ES	Tuban, Davao del Sur	744	DDS
23	Emilio Jose ES	Dapok, Davao del Sur	160	DDS
24	Baybay ES	Baybay, Davao del Sur	570	DDS
25	Tala-o ES	Tala-o, Davao del Sur	328	DDS
26	Bucana ES	Brgy. 76, Bucana, Davao City	2900	Davao city
27	Zonta ES	Brgy. 23, Zonta, Davao City	576	Davao city
28	Agdao ES	Sta Ana District, Davao City	1015	Davao city
29	Doña Solidad Dolor ES	Lami Blo, Talomo, davao City	750	Davao city
30	Cabantian ES	Centro Cabantian, Davao City	539	Davao city
31	Lower Tamugan ES	Purok 1, Lower Tamugan, Davao City	800+	Davao city
32	West Marahan ES	Marahan, Marilog, Davao City	347	Davao city
33	Tagakpan ES	Tagakpan, Davao City	600	Davao city
34	San Alfonso ES	Cateel, Davao Oriental	670	D Oriental
35	Hulid ES	Hulid Aragon, Davao Oriental	298	D Oriental
36	Malibago ES	Malibago, Davao Oriental	110	D Oriental
37	Maglahus ES	Maglahus, Davao Oriental	185	D Oriental
38	Aliwagwag ES	Aliwagwag, Davo Oriental	not indicated	D Oriental
39	Jovellar ES	Jovellar, Davao Oriental	420	D Oriental
40	Wagon ES	Wagon, Macambol, Davao Oriental	180	D Oriental
41	Magum Primary School	Magum, Macambol, Davao Oriental	176	D Oriental
42	Buso ES	Buso, Davao Oriental	272	D Oriental
43	Cabuaya ES	Cabuaya, Davao Oriental	310	D Oriental
44	Macambol ES	Macambol, Davao Oriental	425	D Oriental
45	Bacungan ES	Brgy. Bacungan, Puerto Princesa	not indicated	Palawan
46	Inagawan ES	Brgy. Inagawan, Puerto Princesa	129	Palawan
47	Kayasan ES	Brgy. Tagabinet, Puerto Princesa	75	Palawan
48	Labtay ES	Labtay, Napsan, Puerto Princesa	186	Palawan

	49	Luzviminda ES	Luzviminda, Puerto Princesa	not indicated	Palawan
	50	Mangapin ES	Brgy. Langogan, Puerto Princesa	33	Palawan
	51	Marufinas ES	Brgy. Marufinas, Puerto Princesa	103	Palawan
	52	Napsan ES	Tagakpan,PPS	131	Palawan
	53	Sta. Lourdes	Brgy Sta Lourdes, Puerto Princesa	664	Palawan
	54	Tagabinet	Brgy Tagabinet, Puerto Princesa	83	Palawan
	55	Maranat ES	Brgy Balungan, Puerto Princesa	140	Palawan
	56	San Carlos ES	Brgy Bacungan, Puerto Princesa	84	Palawan
nase	57	Titulok ES	Bagumbayan, Sultan Kudarat	229	Sultan Kudarat
	58	Kabulanan ES	Masiag, Bagumbayan	157	Sultan Kudarat
	59	Sto Nino ES	Masiag, Bagumbayan	156	Sultan Kudarat
	60	Salangsang ES	Keytoda, Lebak	421	Sultan Kudarat
	61	Datalblao ES	Telafas, Columbio	210	Sultan Kudarat
	62	Lasak ES	Telafas, Columbio	104	Sultan Kudarat
	63	New Bantangan ES	Telafas, Columbio	252	Sultan Kudarat
	64	Sinapulan ES	Telafas, Columbio	309	Sultan Kudarat
	65	Bolebak ES	Purikay, Lebak	227	Sultan Kudarat
	66	Pamantingan ES	Manirub, Esperanza	138	Sultan Kudarat
	67	Salumping ES	Manirub, Esperanza	318	Sultan Kudarat
	68	Ricardo Cabaluna MES	Sta Clara, Kalamansig	not indicated	Sultan Kudarat
	69	Sta Clara CES	Sta Clara, Kalamansig	not indicated	Sultan Kudarat
	70	Bugso ES	Kulaman, Sultan Kudarat	258	Sultan Kudarat
	71	Tinalon ES	Kulaman, Sultan Kudarat	133	Sultan Kudarat
	72	Badiangon ES	Palimbang	368	Sultan Kudarat
	73	Malisbong ES	Milbuk, Palimbang	442	Sultan Kudarat

Ph 2

	74	Baluan ES	Baluan, Palimbang	342	Sultan Kudarat
	75	Kalibuhan ES	Baluan, Palimbang	315	Sultan Kudarat
	76	New Canaan ES	Alabel East	420	Sarangani
	77	Sofan ES	Alabel East	450	Sarangani
	78	Datal Anggas ES	Alabel West	313	Sarangani
	79	Tagaytay ES	Alabel West	295	Sarangani
	80	Baliton ES	Glan	911	Sarangani
	81	Sufatubo ES	Glan	220	Sarangani
	82	Gasi ES	Kiamba	296	Sarangani
	83	Ireneo Lopez ES	Maasim	624	Sarangani
	84	Maitum ES	Maitum	444	Sarangani
	85	Wali ES	Maitum	270	Sarangani
	86	Datu Pangolima ES	Malapatan	676	Sarangani
	87	Mama Nawa ES	Malapatan	662	Sarangani
	88	Kawayan ES	Malungon North	295	Sarangani
	89	Kinabalan ES	Malungon North	243	Sarangani
	90	San Roque ES	Malungon South	443	Sarangani
	91	Upper Mainit ES	Malungon South	503	Sarangani
	92	B'laan ES	Malungon Southwest	176	Sarangani
	93	Luis Casiple Jr ES	Malungon Southwest	302	Sarangani
Phase 3	S. No	School	Address	No of Students	Province
	94	Anticala ES		298	Butuan City, Agusan del Norte
	95	Bilay ES		192	Butuan City, Agusan del Norte
	96	Bit-os ES		363	Butuan City, Agusan del Norte
	97	Bugsukan ES		216	Butuan City, Agusan del Norte
Phase 3	S. No	School	Address	No of Students	Province
	94	Anticala ES		298	Butuan City, Agusan del

Phase 3	S. No	School	Address	No of Students	Province
	94	Anticala ES		298	Butuan City, Agusan del Norte
	95	Bilay ES		192	Butuan City, Agusan del Norte
	96	Bit-os ES		363	Butuan City, Agusan del Norte

97	Bugsukan ES	216	Butuan City, Agusan del Norte
98	Datu Santiago B. Ecleo ES	420	Butuan City, Agusan del Norte
99	Doña Teodora ES	400	Butuan City, Agusan del Norte
100	La Soledad ES	216	Butuan City, Agusan del Norte
101	Maibu ES	207	Butuan City, Agusan del Norte
102	M.L. Pineda ES	382	Butuan City, Agusan del Norte
103	Tungao ES	568	Butuan City, Agusan del Norte
104	Amparo ES	505	Butuan City, Agusan del Norte
105	Bitan-agan ES	212	Butuan City, Agusan del Norte
106	Bugabos ES	252	Butuan City, Agusan del Norte
107	Camayahan ES	295	Butuan City, Agusan del Norte
108	Dankias ES	144	Butuan City, Agusan del Norte
109	Don Francisco ES	241	Butuan City, Agusan del Norte
110	Dulag ES	330	Butuan City, Agusan del Norte
111	Pianing ES	372	Butuan City, Agusan del Norte
112	Salvacion ES	205	Butuan City, Agusan del Norte
113	San Mateo Annex ES	253	Butuan City, Agusan del Norte
114	Marangan ES	Not	Zamboanga

		indicated	City
115	SApa Manok ES	192	Zamboanga City
116	Sapa Moro ES	150	Zamboanga City
117	Sibutat ES	190	Zamboanga City
118	Camp Pilar ES	125	Zamboanga City
119	Latuan ES	149	Zamboanga City
120	Sapa Dulian ES	110	Zamboanga City
121	Simanta ES	56	Zamboanga City
122	BAluno ES	109	Zamboanga City
123	BUsay ES	337	Zamboanga City
124	Dulian ES	190	Zamboanga City
125	Shigeru ES	102	Zamboanga City
126	DAvuy ES	345	Zamboanga City
127	Matarling ES	88	Zamboanga City
128	Sibulao ES	355	Zamboanga City
129	Tigbalabag ES	200	Zamboanga City
130	Linduman ES	283	Zamboanga City
131	Merloquet ES	115	Zamboanga City
132	Tagasilay ES	Not indicated	Zamboanga City
133	TAgpangi ES	Not indicated	Zamboanga City
Total of 133 schools	Distributed 264 units of USHK	More than 43,556 students	7 provinces and 2 Chartered Citiy

# Annex 10 – PhilMIS monitoring visits conducted in 2010.

Province	Q1	Q2	Q3	Q4
1. AGUSAN DEL NORTE	May 12	July 7		October 20
2. AGUSAN DEL SUR		July 8		October 19

3. BASILAN			September 17-18	
4. BUKIDNON			September 15	
5. COMPOSTELA VALLEY				October 13
6. DAVAO DEL NORTE				October 16
7. DAVAO DEL SUR	May 20			October 9
8. DAVAO ORIENTAL				October 15
9. MISAMIS ORIENTAL			September 15	
10. SARANGANI	April 27		September 24	
11. SULU			December 7-8	
12. SURIGAO DEL SUR	May 14			October 22
13. TAWI-TAWI			December 7-8	
14. ZAMBOANGA DEL SUR	May 26		September 17-18	
15. ZAMBOANGA SIBUGAY	May 27		September 17-18	
16. ZAMBOANGA DEL				
NORTE	May 5		September 17-18	
17. NORTH COTABATO		April 30		
18. SOUTH COTABATO		April 29		
19. SULTAN KUDARAT		April 28		

# Annex 11 – PhilMIS meetings, trainings and orientations conducted in 2010

Activity description	Date/s (Jan-Jun 2010)
1. PhilMIS Orientation during Basic Malaria	4 Feb/24 June/8 Sep/15
Microscopy Training – Davao City Batch	Sep/30 Sep/13 Oct/28
	Oct/17 Nov/2 Dec/9 Dec
2. PhilMIS Orientation during Basic Malaria	
Management for Midwives	11 Feb/9 June/28 July
3. PhilMIS SOG Orientation and Malaria	
Stratification- Rizal	22-25 Feb
<ol><li>PhilMIS SOG Orientation and Malaria</li></ol>	
Stratification- Maguindanao	5-6 May
5. PhilMIS SOG Orientation and Malaria	
Stratification- Antique	3-4 March
5. PhilMIS Coaching Sessions	26-28 May/7-9 July
6. PhilMIS SOG Writeshop	28 June-1 July/17-20 Aug

Province	Working Version	Status of Encoder
1. AGUSAN DEL NORTE*	4.0	PHO – Casual
2. AGUSAN DEL SUR*	4.0	PHO – Casual
3. BASILAN	4.0	PHO – Regular
4. BUKIDNON*	4.0	PHO – Regular
5. COMPOSTELA VALLEY*	4.0	PHO – Regular
6. DAVAO DEL NORTE*	4.0	PSFI Staff
7. DAVAO DEL SUR*	4.0	PHO – Regular
8. DAVAO ORIENTAL*	4.0	PHO – Casual
9. MISAMIS ORIENTAL*	4.0	PHO – Regular
10. SARANGANI*	4.0	PHO – Regular
11. SULU*		PSFI Staff
12. SURIGAO DEL SUR*	4.0	PHO – Regular
13. TAWI-TAWI*		PSFI Staff
14. ZAMBOANGA DEL SUR*	4.0	PSFI Staff
15. ZAMBOANGA SIBUGAY	4.0	PHO – Casual
16. ZAMBOANGA DEL*		
NORTE	4.0	PHO – Casual
17. NORTH COTABATO	4.0	PHO – Regular
18. SOUTH COTABATO	4.0	PHO – Regular (for training)
		PHO-DOH Regular/PHO –
19. SULTAN KUDARAT*	4.0	Casual
20. PALAWAN		PSFI Staff
21. Apayao		PSFI Staff
22. Quirino		PSFI Staff

## Annex 12 – PhilMIS activities and status in Jan – Jun 2010

Annex 3 – Malaria stratification by City/Province, DOH CHD-Davao Region, 2009-2011. [NEB = Number of Endemic Barangays; NEP = Number Endemic Population; No. HH = Number of households].

City/Province Total No. of Brgys.				Endemic Areas								Total Endomia			Non-Endemic Area				
	Total No. of	Total No. of	Total Pop'n.	Stable		Unstable		Sporadic						Malaria Prone					
	Brgys.	HH		NEB	NEP	No. HH	NEB	NEP	No. HH	NEB	NEP	No. HH	NEB	NEP	No. HH	NEB	NEP	r	lo. Hł
1. Davao City	25	20,145	95,375	4	13,231	2,206	-	-	-	14	56,512	13,218	18	69,743	15,424	7	25,632	4	721
2. Davao del Norte	149	92,698	556,186	6	32,839	5,473	2	4,234	706	14	33,684	5,614	22	70,757	11,793	127	485,429	8	0,905
3. Davao del Sur	218	85,345	512,068	3	5,876	979	8	19,335	3,223	7	23,632	3,938	18	48,843	8,140	200	463,225	7	7,205
4. Davao Oriental	183	91,786	511,888	-	-	-	14	40,367	6,725	21	42,872	6,642	35	83,239	13,367	148	428,649	7	8,419
5. Compostela Valley Province	243	110,420	494,146	2	1,871	174	11	25,506	5,086	10	53,745	9,700	23	81,122	14,960	220	413,024	9	5,460
Total	818	400,394	2,169,663	15	53,817	8,832	35	89,442	15,740	66	210,445	39,112	116	353,704	63,684	702	1,815,959	3	36,71