The Global Fund Program

Malaria

MALARIA EPIDEMIOLOGY AT THE REGIONAL AND NATIONAL LEVEL

Malaria is endemic in ten countries in the Western Pacific Region, with the Philippines ranking low among the East Asian and Pacific countries. It is mainly associated with poverty and poses a significant impediment to the socio-economic development of affected communities.

The largest populations at any risk of malaria are found in the World Health Organization (WHO) Southeast Asia and Western Pacific regions.

From 2003 to the present, substantial progress has been made in the control of the disease in most of the endemic countries in the region, leaving only three countries in the Pacific with widespread prevalence.

The World Malaria Report of 2008 describes the downward trend in malaria cases in at least 25 countries across the five WHO regions (except Africa). The Philippines is among six countries in the American and SE Asian Western Pacific regions with declining trends in reported malaria deaths (1997-2006).

In the Philippines, malaria remains among the top ten leading causes of morbidity. An estimated 11 million Filipinos are at risk, with 58 out of 80 provinces endemic for the disease. These communities are the mobile rural poor, who live near mosquito breeding sites and rely on forest products or are subsistence farmers. Indigenous peoples' groups are also at risk.

On the national level, malaria morbidity and mortality rates show a downward trend. From a baseline Annual Parasite Incidence (API) of 0.55/1000 in 2005, the rate has gone down to 0.28/1000 in 2008 or a 49% decrease. As for death rates due to malaria, there is a 68% reduction from the 2005 baseline (0.17/100,000 in 2005 to 0.055/100,000 in 2008). Much of the reduction of malaria cases has resulted from the strategies and interventions in improving case detection and treatment, vector control, and epidemic management and surveillance.

The Malaria Control Program has grouped the 80 provinces into four categories, based on the average malaria cases per year: 1) Category A provinces are those with more than 1,000 cases/ year; 2) Category B provinces are those with 100 to less than 1,000 cases per year; Category C provinces are those with less than 100 cases per year; and Category D provinces are those that are malaria-free.

Around 94% of the malaria cases nationwide are found in 26 Category A provinces and were the focus of the GF Round 2 Malaria grant.

In particular, with GF support, the 26 Category A provinces showed a 32% reduction of cases (2006). This has resulted in the re-categorization of the 26 project provinces that were originally Category A provinces -- only 7 project areas remain as Category A, 16 are now in Category B, and 2 in category C.

Likewise, with the average cases covering the period 2001-2007, there was recategorization of all

the endemic provinces nationwide. As previously stated, from 26 provinces, now only 7 provinces remain as Category A. Category B provinces increased to 26 (from a previous of 22) and Category C from 18 to 26.

Malaria-free provinces also increased from 13 to 22.

With these figures, the Philippines is currently in the pre-elimination stage, where the API is now less than 1 malaria case per 1,000 population at risk. With sustained and coordinated implementation of the complementary strategies for malaria control and prevention, the vision of a malaria-free Philippines will soon be within reach.

GF MALARIA PROJECT : OBJECTIVES

Early diagnosis and prompt treatment is a core strategy for malaria control and is central to the implementation of all the Global Fund Malaria Projects. The aim is to provide prompt diagnosis and adequate treatment within 24 to 48 hours after consultation of the patient with fever in endemic communities to prevent progression of uncomplicated malaria to severe cases and to avoid death.

- Round 2: To increase the proportion of febrile patients receiving early diagnosis and appropriate anti-malarial treatment
- Round 6: To consolidate, expand and sustain high coverage of early diagnostic and treatment services for malaria through health systems strengthening and public private partnership
- Rolling Continuation Channel: To provide universal access to quality diagnosis and treatment of malaria in endemic areas

How were the objectives fulfilled?

In Round 2, the project focused on improving the malaria diagnostic and treatment services of existing government health facilities, such as the Rural Health Units and hospitals. New facilities in strategic locations in remote areas were set up, thereby providing access to quality services for the most vulnerable groups, including indigenous peoples, those whose livelihood depend on forest products, pregnant women, and children.

Medical Technologists, Barangay Malaria Microscopists, and community members who volunteered to become health workers were

trained on malaria microscopy (the use of rapid diagnostic tests). Medical doctors, Rural Health Unit employees, and community volunteer health workers were trained on the management of uncomplicated and severe malaria.

Logistics necessary for the delivery of malaria diagnostic and treatment services, such as microscopes, RDT kits, laboratory supplies, and anti-malarial drugs (first to third line), were provided. For the first time in years, health facilities had plenty of anti-malarial drugs. Monitoring the stock levels of these essential commodities was also ensured to prevent stock outs and to make certain that the services are always available.

Monitoring of diagnosis in the microscopy centers was implemented using the quality assurance system developed by the Malaria Control Program in coordination with the World Health Organization and ACTMalaria. Drug efficacy and response to treatment of the patients were evaluated through the Therapeutic Efficacy Surveillance studies conducted by the Research Institute for Tropical Medicine. These studies and the experiences in the implementation of the Round 2 project were instrumental in the review and updating of the national drug policy for the treatment of malaria moving towards the use of artemisinin-based combination therapy (ACT).

The Round 6 project contributed in the further expansion of the malaria diagnostic and treatment services in four more provinces in addition to the 26 provinces of Round 2. It also trained health service providers and supported more private hospitals and clinics for the improvement of their malaria services. Round 6 has also expanded the services provided by the health facilities by improving their capacity in microscopy and treatment for other disease programs such as TB and parasitic diseases of public health importance (schistosomiasis, filariasis, food and water-borne diseases).

The extension of Round 2, or the Rolling Continuation Channel, even if this has just began, has already expanded into more RDT sites covering ten additional provinces within the borders of the existing R2 provinces in Luzon.

To facilitate efficient bed net distribution, master lists of families in all targeted communities were prepared to confirm targets set prior to bed net distribution. This helped to ensure that every family will be provided with the sufficient number of bednets. Not only does this equitable distribution maintain harmonious relations, but sufficient coverage also serves to minimize human exposure and disease transmission. Mobile communities and new families that were not previously listed, particularly those from the endemic areas, were also provided with nets from a contingency or buffer allocation. The local government units from the provincial, municipal, and baranggay levels provided support in in the form of transporting commodities from the Provincial Health Office warehouse to the recipient communities.

The Rural Health Units (RHUs), together with partners from the PHO as well as the Centers for Health Development (CHD), provided technical support by conducting information and education campaigns in all areas with bednet distribution activities as well as documentation and reporting of accomplishments. Conventional bednets that were distributed in the early periods of the project were also retreated with insecticide during subsequent distribution activities.

Bednet distribution during Round 2 was at full/heavy subsidy and on partial subsidy schemes. In the final period of Round 2 implementation, the target was to distribute 440,333 nets. The target was surpassed by being able to distribute 462,427 bednets, achieving a coverage rate of 105%. However, the consolidated report on the distribution of partially subsidized bednets showed a total of only 264,343 nets out of the 431,361 targets or only 61% accomplishment. This was due to more nets being distributed at full/heavy subsidy. The Round 6 net distribution started in the first semester of the implementation of R6. No subsidy scheme was used anymore in compliance to GF policy to provide all nets at no cost to the recipient. Long lasting insecticide treated nets (LLIN) were then procured and distributed. The program achieved 102% or 118,056 nets distributed out of the 115,463 targeted for the period.

A very high accomplishment rate for net retreatment of 115% was also achieved. These

bednet retreatment activities were efficiently conducted in areas where conventional bednets had previously been distributed, along with distribution of LLINS in areas that had previously not received any bednets. (See Table 1.)

The Global Fund Malaria Component support paved the way for the establishment of stockpile centers in strategic areas, which were managed efficiently by the CHDs to respond immediately to outbreaks of Malaria and special operations across borders between provinces. The presence of these centers helped intensify efforts to combat Malaria. The centers managed the required logistical support particularly for insecticides, spray cans and personal protective equipment. Accessibility to these centers, combined with active local manpower, helped in achieving our targets over the years. (See Table 2.)

Bringing partners' participation to a higher level

Mainstreaming the Malaria Control Program (MCP) through the formal health structure of the LGU, RHU, and BLGU has been the backbone of the community-based malaria control program since the beginning of the project. This is reflected in the increased number and heightened involvement of various organized action committees, health workers, and different organizations mobilized. In the past one and a half years, a total of 4,151 partners actively participated in the MCP activities in the 26 provinces.

At the forefront are the Barangay Action Committees (BACs), barangay councils, BHWs, RHU personnel, and the municipal government, accounting for 44% of all partners.

In addition to the government partners, schools and private sector organizations, like faith-based organizations (FBOs), non-government organizaitons (NGOs), and people's organizations (POs), have also been active partners.

Partners' activities centered on planning for the distribution and retreatment of bednets, malaria awareness campaigns, indoor residual spraying (IRS), and conduct of active case detection and mass blood surveys (ACD/MBS). These were carried out by the BHWs, barangay council officers and BAC

Table 1. Net Distribution and Retreatment Accomplishment, Round 2 and Round 6 GFMC

ROUND	TARGET	ACCOMPLISHMENT	%
ROUND 2			
Full/Heavy Subsidy	440,333	462,427	105
Partial Subsidy	431,361	264,343	61
Retreatment	369,817	424,980	115
ROUND 6	115,463	118,056	102

Table 2. Indoor Residual Spraying Conducted, Round 2 and Round 6 GFMC

ROUND	TARGET	ACCOMPLISHMENT	%
ROUND 2	55,000	110,730	201
ROUND 6	3,201	6,088	190

Data taken from PUDR R2 extension and PUDR R6 P5P6

members. As community-based sentinels, they are the channels of health services including malaria of the formal health structure from the municipal (RHU) to the barangay level.

Expansion of membership and still counting

In order for the malaria control program to be truly community-based and sustainable, the private sector, non-governmental organizations, faith- based organizations and community-based organizations should also be mobilized. At present, the project has exceeded the targeted 105 partnerships to be forged, with an output of 121 or an accomplishment rate of 115%. The most number came from NGOs and civil society organization with 44 or 42% of the total target, followed by the members from the CBOs and PO side and the last coming from the FBOs with 37% and 34% respectively. (See Table 3.)

Another responsibility taken by these new MCP implementer-recruits was the training in diagnosis and treatment of malaria. A total of nine health personnel were trained and are now incorporated in the system of MCP in their respective provinces. One medical technologist is from a private hospital in Cagayan, two RDT-BHWs in Zamboanga del Norte, and another four missionary educators from Occidental Mindoro.

A number of these new partnerships were forged, because the project put premium importance on the need to involve private organizations, not only to expand advocates of malaria control, but also for the private sector and the community to share in the responsibility of delivering quality malaria health services, shouldered mostly by the formal health structure.

LGU Monetized Counterpart: Putting money where their mouth is

Over the years, funding for malaria control in each of the project provinces has steadily increased. This is a testament that malaria is not only a good investment for the LGUs, but more importantly, the message that malaria elimination is indeed possible, especially through the collaboration and resource sharing of all stakeholders.

From the 2003 over-all baseline budget of P 17,538,474.20, LGU funding increased 63% to P47,732,210.50 by the year 2009. Personnel services account for most of the budget allocation. Misamis Oriental consistently has the highest budget over the years with Mt. Province as the lowest primarily, because it covers only one municipality at present. (See Tables 4.1-4.3.)

Table 3. Classification and Percentage of New Partners for MCP Implementation **(October 2008-September 2009)**

CLASSIFICATION	ACTUAL NO. OF INVOLVED ORGANIZATIONS	%
1. NGOs/Civic Organization	44	42
2. Community-based/People's Organization	39	37
3. Faith-based Organization	36	34

What area showed the greatest impact?
The improvement of existing diagnostic and treatment centers of the Rural Health Units and public hospitals, as well as the expansion of these services to the remote and hard-to-reach endemic areas through the barangay malaria microscopy centers and the RDT sites, contributed to the improvement of case-finding and treatment. Parasite-based diagnosis became the norm, while diagnosis based on clinical signs and symptoms alone is now rarely done.

The projects provided assistance to 1,978 health facilities. A total of 4,399 health service providers were trained on diagnosis and treatment. These health facilities serve around 8 million of the endemic population, representing approximately 70% of the total endemic population in the Philippines.

Scaled-up implementation of vector control measures was carried out to meet challenges posed by increasing cases, as well as to pre-empt historic peaks in disease transmission trends with health workers bringing on a proactive stance in dealing with their own local Malaria problem. This contributed significantly in the reduction of Malaria cases over the years. With the project being able to address the Malaria concerns, local governments also realized the importance of the prevention and control mechanisms to deal with the disease. This eventually inspired local partners to purchase their own nets and insecticides, utilizing portions of their development funds.

The taking on by the LGU of the salaries and honorarium medical technologists and barangay malaria microscopists respectively is one of the major impact of the social mobilization strategy. It illustrates the sense of ownership of the LGU over the program.

Functional malaria action committees organized at the provincial, municipal to the barangay level complement the organic health service delivery structure through their mandate of providing policy support and the needed political will.

Expansion of malaria diagnostic and treatment services through the equipping of private sector health facilities and community-based organizations. This increases access of at risk populations in remote areas to much-needed services which cannot be provided by the formal health structure due to limited resources.

What area faced the greatest challenges?
The capability of the health service providers for malaria diagnosis and treatment has been improved through the projects, but the continuity of their services is threatened by the lack of support for salaries, honoraria, and operational expenses by the local and national government. The diaspora of Filipinos seeking for overseas jobs continue to drain the medical technologists, nurses and doctors employed in the main health centers and hospitals requiring constant re-training of service providers.

Lack of proper evaluation of the training courses especially for the medical doctors made it difficult to address their difficulty in complying with the drug policy and understanding their reluctance in implementing the revised one.

The slow pace of implementing malaria control as a devolved program posed the greatest challenge in the beginning of GF Project implementation. There was confusion on the responsibility of the local government units and the Department of Health resulting in the neglect in the provision of services in many areas and the disinclination of local officials to undertake malaria control. The project succeeded in providing the venue to clarify roles and to encourage the LGUs to carry out and assume their roles in a devolved malaria program.

Outright refusal of some household heads to have their houses sprayed led to the inability of the activities to reach 100% coverage in a few areas. This may partly be attributed to the lack of social preparation and information dissemination on the benefits of this control measure.

Difficulty accessing some communities in far flung (island and mountainous) target areas, the exceedingly warm and humid climate, the significant weight of the spray can and protective gear, all contributed to the physical stress among spray men, eventually affecting the quality of spraying, especially considering the number of target houses to be processed within a working day to meet the quota and finish the activity on time and within budget.

Table 4.1. LGU MCP Counterpart, 2003-2009

Year	2003	2004	2005	2006	2007	2008	2009
LGU MCP Counterpart	17,438,474.20	21,885,074.26	26,651,849.81	30,343,569.79	38,205,612.96	43,710,203.02	47,732,210.50

Table 4.2. Rank of Component Allocation, 2003 - 2009

COMPONENT ALLOCATION	BUDGET ALLOCATION	RANK
Personnel	279,925,760.65	1st
Transportation	66,903,263.80	2nd 3rd
Anti-malarial drugs	26,222,754.02	4th
Bednets	23,266,151.09	5th
Insecticides	13,381,324.76	

Table 4.3. Comparative Budget of Provinces, 2003-2009

PROVINCE	2003	2004	2005	2006	2007	2008	2009
Agusan del Norte	2,098,102.00	2,887,096.00	3,361,971.00	3,294,096.00	3,394,096.00	3,309,096.00	3,354,096.00
Agusan del Sur	180,000.00	1,875,000.00	1,385,000.00	1,385,000.00	1,565,000.00	1,860,000.00	1,730,000.00
Basilan	267,800.00	286,800.00	298,800.00	356,575.00	363,575.00	403,390.58	471,720.00
Bukidnon	4,664,940.21	5,131,434.24	5,644,577.65	6,214,611.21	6,836,072.33	7,517,679.57	14,868,061.00
Cagayan	438,760.00	485,260.00	460,000.00	703,000.00	650,873.14	1,694,833.14	941,033.14
Compostela Valley	75,000.00	386,100.00	589,200.00	607,200.00	567,062.00	705,000.00	530,000.00
Davao del Norte	0.00	0.00	0.00	300,000.00	300,000.00	300,000.00	300,000.00
Davao del Sur	0.00	0.00	0.00	0.0	0.00	826,280.00	877,040.00
Davao Oriental	0.00	0.00	0.00	5,700.00	1,541,286.00	1,327,420.00	0.00
Ifugao	917,662.00	1,306,997.36	1,382,853.36	1,610,810.36	2,020,280.36	2,260,182.36	2,107,164.36
Isabela	900,000.00	652,000.00	2,486,669.20	2,018,886.78	3,370,849.90	2,470,913.17	2,277,293.20
Kalinga	0.00	0.00	200,000.00	200,000.00	100,000.00	200,000.00	50,000.00
Misamis Oriental	6,648.090.71	7,386,767.46	8,207,519.40	9,119,466.00	10,132,740.00	11,146,014.00	12,260,615.40
Mt. Province	0.00	0.00	0.00	99,000.00	138,000.00	132,000.00	71,840.00
North Cotabato	0.00	0.00	0.00	0.00	907,200.00	1,583,358.00	1,697,866.00
Occidental Mindoro	135,000.00	200,000.00	160,000.00	568,400.00	639,000.00	688,800.00	757,800.00
Quezon	725,424.00	737,424.00	1,388,289.00	2,122,596.00	3,137,596.00	3,041,596.00	3,051,596.00
Sarangani	0.00	100,000.00	142,775.00	142,775.00	103,680.00	182,110.00	166,780.00
South Cotabato	87,500.00	0.00	0.00	60,925.00	359,200.00	1,223,520.00	0.00
Sultan Kudarat	400,195.20	450,195.20	457,195.20	540,624.40	673,548.40	839,795.30	854,244.00
Surigao del Sur	0.00	0.00	0.00	490,904.04	727,328.00	838,228.00	437,061.40
Zambales	0.00	0.00	487,000.00	281,000.00	335,400.00	396,800.00	234,000.00
Zamboanga del Norte	0.00	0.00	0.00	0.00	25,000.00	400,000.00	400,000.00
Zamboanga del Sur	0.00	0.00	0.00	222,000.00	222,000.00	222,000.00	222,000.00
Zamboanga Sibugay	0.00	0.00	0.00	0.00	95,825.83	141,186.90	72,000.00
TOTAL	17,538,474.20	21,885,074.26	26,651,849.81	30,343,569.79	38,205,612.96	43,710,203.02	47,732,210.50

Field-based workers experienced some difficulty in obtaining and consolidating accomplishment reports at the end of each activity. Barangay Health Workers assigned to facilitate the activities had to keep the reports for quite a while, until it was time for them to attend a meeting and submit the report to the RHU to minimize spending on transportation.

Bednets have become political commodities, especially during the election period. This has affected the schedule of bednet distribution and retreatment activities, as local leaders influence the timing to coincide with their campaign rallies, meetings, and motorcades.

The continuity of the best practices in malaria control was difficult to maintain, in the light of the upcoming elections

There was also a constant need to promote and maintain trust between government agencies/ organizations and the private sector organizations.

SUCCESS STORIES

Birthing Pains: The Development of the Malaria Control Program Reporting System

Until 2004, a purely paper-based reporting system for Malaria was being utilized by the National Malaria Control Program (MCP) of the DOH. Although the Field Assistance Workers (FAW) and other staff of the Provincial Health Team (PHT) kept a list of individuals examined, results of these diagnostic tests were not always recorded in a single document. At times, they were not recorded at all.

The strain of the increased volume of reports to be processed was evidently too much for the old system to handle. After several consultative meetings and discussions spearheaded by the Technical Working Group (TWG) for Malaria, the decision was made to formulate a single recording and reporting system for all MCP activities. The culmination of these developmental processes is the Philippine Malaria Information System (PhilMIS), a comprehensive compendium of all the indicators of the program, which is envisioned to be adopted as the official reporting system of the National Malaria Control Program (MCP), from the most remote Rural Health Unit (RHU) up to the central office of the Department of Health (DOH).

TDF, with the support of the Global Fund, and the World Health Organization (WHO), took the lead in deploying the system at the field level. All health workers involved in the MCP, from Barangay Health Workers who perform Rapid Diagnostic Tests for Malaria (BHW-RDT) to the hospital doctors, nurses, and pharmacists had to be oriented on the SOG, especially on the PhilMIS reporting forms (MPRF, MMRF, etc). MCP personnel, barangay volunteers and partner NGOs were given orientations on the use of the PhilMIS Vector Control forms during field activities. Some personnel and volunteers, particularly those belonging to indigenous peoples (IP) groups with limited formal education, had difficulty understanding and accomplishing the various forms. In order to assist them and improve the quality of data, several orientations, reorientations and consultative meetings had to be conducted.

TDF, with GF support, has provided funding for the software development as well as the provision of hardware and necessary peripherals to end users in much the same way as it has provided for the production, reproduction, and distribution of the various PhilMIS forms, their eventual collection, collation, validation, and encoding

This is PhilMIS — having evolved from a project data collection system to a program information system. It is currently the official reporting system for MCP in 26 provinces receiving support from Global Fund. Implementation in ten more provinces is set to commence next year.

Surigao del Sur

Malaria has been a burden in Surigao del Sur for many years and is one the five priority programs of the disease free zone initiative of Fourmula 1 of the Department of Health.

The province is classified as a category B province with regard to the average number of Malaria cases annually. Transmission occurs throughout the year but peaks during the rainy season and is affected by both the application of control measures and population movement.

As of 2008, SDS has a total endemic population of 462,382 with the population at risk for contracting the disease numbering 200,140 individuals residing in the endemic - 138 baranggays in 12 municipalities and one city.

The Tropical Disease Foundation Malaria Program, which started in October of 2004 and was fully implemented by year 2005, helped much in the last five years in the control and reduction of cases. A five year status assessment from 2004 to 2008 showed a significant drop in confirmed cases. Trainings for BHW were conducted to establish seven (7) Baranggay Malaria Microscopy centers, 32 Rapid Diagnostic Testing (RDT) sites and the hiring of three (3) additional medical technologists. Training activities for hospital and Rural health Unit physicians, public health nurses and midwives were also conducted which resulted in better quality diagnosis and treatment. Likewise, educational activities were strengthened by training teachers and nurses from the Department of Education as well as integrating the school-based Malaria modules into the curriculum which contributed to increasing the awareness of students regarding Malaria.

Vector control measures were enhanced by having partners mobilized in the local government units to assist in the bed net distribution, bed net retreatment and indoor residual spraying activities. Local government units also provided funding for salaries of medical technologists, baranggay Malaria microscopists and baranggay health workers. Best practices in the barangays were observed and skills enhanced with the transfer of technology in the local level and capability trainings were conducted.

The investment of the Tropical Disease Foundation in Surigao del Sur, in terms of financial and technical assistance, has also made the stakeholders and the community members realize that their understanding, cooperation and active participation are the real keys to Malaria control. The strategies and activities that were implemented were very appropriate; they have not only significantly reduced the morbidity and mortality but also changed the attitude of the community in general.

More Bednets Distributed in Sarangani

Thousands of long lasting insecticide treated bednets were distributed to 4 Malarious municipalities of Sarangani Province namely, Maitum, Kiamba, Maasim and Glan. They were distributed in first and second priority endemic baranggays. These activities resulted in the increase of bednet coverage in these municipalities from 37% to 90%, well above the WHO standard, which is 80%.

Based on the bednet allocation, the total nets for the 4 municipalities was 38,838 pieces, broken down as follows: Maitum - 12,965 pieces, Kiamba - 12,965 pieces, Maasim - 5,918 pieces, and Glan - 11,824 pieces. All these nets were given for free and this policy was strictly observed by the implementing partner agencies in the government both in the municipal and baranggay levels. The Provincial Management Committee passed a resolution supporting this policy thus, families received the bednets at no cost.

The distribution of bednets was smoothly managed. There was an organised distribution team at the municipal level who was on top of all bednet distribution activities. This team was composed of the Rural Health Unit (RHU) Point Person for Malaria, RHU medical technologist, RHU Public Health Nurse and Rural Health Midwives under the leadership of the Municipal Health Officer. All concerned baranggays were properly coordinated with and health workers in the community participated by disseminating the information and assembling the recipients.

A Multi-Generational Strategy in Combating Malaria in Paracelis, Mountain Province

A multi-generational strategy was envisioned to "honor the older generation while training the younger ones". This is a sustainability mechanism to uphold efforts employed by the project in the municipality.

The Paracelis community is composed of hardworking individuals fighting for their family's survival on a daily basis. In this context, the possibility of convening parents (mothers and fathers) for information campaigns is slim. The accessible audience identified were the schoolchildren, evidenced by the activity conducted where the schoolchildren campaigned against Malaria.

Two schools in the municipality of Paracelis, Mountain Province celebrated the "Buwan ng Wika" or National Language Month with the integration of Malaria awareness material. The theme was "Malaria sugpuin, kulambo'y gamitin" or, roughly, "Fight Malaria, Use Bednets".

The culminating activities were conducted in Paracelis Central School last August 27, 2009

where activities included jingle composition, poster making and slogan writing contests all focused on the theme of Malaria prevention and on August 28, 2009 at Labay elementary school where the events included jingle composing, a quiz bee, poetry writing and choral recitation contests. Through these school based events, knowledge and awareness regarding the Malaria and its prevention were expected to be raised and eventually translate into the practice of sleeping under a properly set up bednet every night.

Ms. Maria Theresa Iglesia, PPC of the project in the province, in her message said that, through these pupils, the health sector will have an advocate in each household and serve as an instrument in reaching out to the parents.

Misamis Oriental

At the start of its intensive implementation in 2004, the municipality of Magsaysay ranked second only to Gingoog City as having the most numbers of cases of Malaria in the entire province of Misamis Oriental. That was also the year that the technical assistance and support from the Tropical Disease Foundation were extended to our municipality to address the persistent rise in Malaria cases. The municipality of Magsaysay is bordered at the southeast by Agusan del Norte and at the southwest side by the mountains of Gingoog City both areas noted for their large number of Malaria cases. Residents of Magsaysay commonly travel to these neighboring areas to seek employment in hinterland farms making them highly susceptible to contracting the disease.

The problem identified at the start of the project was a general lack of understanding about Malaria as a disease and the vector necessary for its transmission. This led to poor health seeking behavior among people in the affected communities. The project has identified four baranggays which were classified as category A areas (Tama, Gumabon, Katipunan and Mahayahay), two category B baranggays (Damayuhan and Bonifacio Aquiño) and nine baranggays as Malaria epidemic prone areas (Cabalawan, Consuelo, Mindulao, Tibon-Tibon, Tinaan, San Vicente, San Isidro, Villa Felipa, and Candiis).

Communities and health workers started out mum about the Malaria Control Program but, through a series of local consultations and assemblies, we learned the root causes of indifference and lack of participation. We slowly earned back the trust of the community to the local officials through our intervention by conducting regular dialogues and small focused-group-discussions on their problems and the Malaria problem in the locality.

The role of the baranggay malaria microscopist and rapid diagnostic tester is very crucial in the success of MCP. Their activities include advocacy of the use of long lasting insecticide treated nets (LLITNs) by people in the communities particularly those in category A and category B baranggays. There were initial distribution activities of nets as well as treatment and re-treatment of conventional nets by the people in the communities. Participation in IEC gatherings is high (95%). Community involvement in stream clearing activities, monitoring of the regular use of LLITNs by baranggay tanod, mass blood surveys along the borders, lectures in schools and distribution of LLITNs. The good relationship between the RDT's, BMM and the communities played a critical role in the implementation of the MCP. Their tireless efforts have made the early diagnosis and prompt treatment of Malaria a reality.

Kalinga

With the extensive assistance of the Tropical Disease Foundation backing the Philippine Malaria Control Program, the cases of Malaria in the Province of Kalinga have significantly

declined from 989 in 2005 to just 36 in June 2009 . Considering the century-old Malaria Control Program, wherein large amounts of money and innumerable man hours were spent to achieve the goal of eliminating Malaria, the progress made in the last five to six years is truly astounding. The partnership with the Department of Health and local government units also helped to achieve this historic feat.

Buhay Malaria

We were inspired by Serafin Balcita, or simply "Apyong", our community organizer assigned in Sarangani, Davao del Sur. As a child, his father worked as a Malaria canvasser assigned in the same area. His father could only come home every three months. He grew up hearing stories about Malaria control programs. In 2003, Apyong was hired by the Malaria Control Program in the municipality of Jose Abad Santos as Field Assistant Worker (sprayman) for seven months. In 2004, he was hired as Community Organizer by the Tropical Disease Foundation, assigned in the same area where his father once worked, in Sarangani Island. Along with him are nine Community organizers assigned in different municipalities (2 of them assigned in Sarangani). They were given training on community organizing and social mobilization, participated in planning workshops and attended various meetings.

As they were deployed in their designated municipalities, different strategies / activities were conducted like bednet distribution, bednet retreatment, active case detection, stream clearing, IEC activities and social mobilization which helped to decrease the Malaria cases in Sarangani Island. At first, the LGU was hesitant to support him, but with persistent lobbying and consistently showing impressive results, the support was established.

We witnessed how dedicated Apyong is to the program. When the funding for the salaries of the community organizers was discontinued, he kept on working with the PMT as a volunteer with no remuneration for six months. When he got married, he wasn't able to participate in the preparation of his wedding because of the tight schedule on bednet distribution. He wasn't able to celebrate their first wedding anniversary because he was busy preparing for the World Malaria Day celebration in the municipality. When his wife gave birth to their firstborn, he was with us in the field.

We've seen him grow and improve, in skills and in confidence, in his ability to mobilize the community and lobbying with the LGU. The number of Malaria cases in 2007 was 66 and Baranggay Laker contributed 42 of those. For this year, only 22 Malaria cases have been reported, eight of whom are from Baranggay Laker. The number one baranggay in terms of Malaria endemicity in the province is now only a second priority area in the municipality.

Davao del Sur

The number of Malaria cases reported in 2003 for the province of Davao Del Sur was 2,373 and in 2004 it fell to 482. We reviewed all the data and tried our best to validate the source documents to glean the true Malaria status of the province. The main challenge was that report submission rates were low.

The data told us that the island municipality of Sarangani contributed 55% of the cases in the province. Focusing on Sarangani, 65% of its cases come from Barangay Laker. Considering that the logistical difficulty presented by this priority area in a remote island we decided to meet the local chief executive through the municipal committee on health. Eventually, we gained an audience with the mayor and he agreed to provide the salary for a baranggay malaria microscopist for the rural health unit and continue to support all four trained microscopists and three barangay health workers performing rapid diagnostic testing for Malaria. These health workers provide services to 20,623 people.

To further the efforts to reduce the burden of Malaria as a disease, we decided to lobby for hiring of community organizers by the local government unit. We visited all the concerned municipalities and met with the mayors, with the assistance of the Provincial Malaria Coordinator (PMC) and the Provincial Health Officer (PHO), to ask for the inclusion of salaries for community organizers in their annual budgets. Having successfully convincing only one mayor, we turned to the PHO who agreed to hire three community organizers upon approval of the governor. As a result, four community organizers were hired.

With the assistance of the community organizers, we systematically reviewed all pending documentation, areas for improvement and planned on how to best address them. Within a year, approximately 75% of reports were being submitted on time and some facilities which had become inactive were re-launched. More than 100% of nets targeted for retreatment were actually processed. All facilities were monitored regularly. Malaria case surveillance activities were strategically conducted and resulted in the control of the increase in cases in the highly endemic barangays, averting possible outbreaks.

Mobilization of the local leaders was also strengthened. The indoor residual spraying activities were conducted with the local government unit shouldering the majority of the transportation costs of equipment, materials, and personnel. A pump boat with a capacity of 12 persons was also commissioned using funds from both the municipal government and the contribution of the community which was part of the Bednet Revolving Fund. Barangay Malaria Microscopy Centers were also constructed in Barangays Laker and Batuganding with similar arrangements.

In 2008, we achieved our objective. Our target was to decrease the number of Malaria cases by 30% in one year; from 2007 to 2008, the decrease was more than 35%. As the next step, we moved to intensify mobilization of the health sector and private partners. One non-government organization and three faith-based organizations committed to support the program. The Department of Education also supported the school-based Malaria educational campaign. The rural health unit mobilized their field health staff and distributed 9,990 LLITNs to 5,971 households. This represents coverage of 100%.

As of September 2009, a total of 73 confirmed cases have been reported in Davao del Sur. Comparing that to the 2,373 in 2003 crystallizes how well the program has been implemented in our area of responsibility. With all the vector control measures delivered to and performed for the recipient communities, the goal of 70% decrease in Malaria morbidity and 100% decrease in mortality due to Malaria has already been accomplished.

Compostela Valley

The Tropical Disease Foundation Malaria Control Project started in 2004 in the province of Compostela Valley. Data gathering and data consolidation were among the first activities done by our team with the help of our reliable

partners in order for us to have an accurate understanding of the real extent of the Malaria status of our province.

Training of potential partners and establishment of health facilities for easy access to health services were then undertaken as the next activities in program implementation.

Our efforts were not wasted. Malaria cases had gone down to 174 by the year 2007, 83 in 2008, and 28 in the period from January to September 2009. These great improvements can be attributed to the vector control strategies employed, especially in the municipality of Laak where most of the positive cases came from. In baranggay Aguinaldo, where the baranggay captain is a former baranggay Malaria microscopist, Malaria control activities are very much appreciated and supported. Continuous Malaria education campaigns were undertaken by the health service providers in the province of Compostela Valley. Ensuring the timely submission of monthly reports was also given importance so as to monitor the trend of cases in their areas.

Little Acts Behind the Success in Reducing Malaria Cases in Cagayan

Carmelita Valderama, a Barangay Malaria Microscopist from San Vicente, Sta. Ana, Cagayan was trained in August 2005 and was financially supported by the TDFI project for one year before eventually being absorbed into the Barangay workforce. However, when a new Baranggay Chairman was elected in 2007, the salary of Mrs. Valderama was withdrawn by the local government. Despite the fact that she was not getting paid, she continued to render services and remains an active and effective Health Service Provider to this day. Lobbying for a budget item for her salary at the municipal level has been continued by the Provincial Health Office, citing her dedication to her community and her steadfast commitment to protect them from Malaria.

A successful reduction in Malaria cases in a certain area would not be possible without the support of the local government. The municipality of Baggao, which contributes about 30% of the total number of cases of the province, has been showing their commitment in reducing malaria cases by achieving more than the agreed upon targets for vector control activities, particularly bednet retreatment and indoor residual spraying by purchasing materials independently and mobilizing communities to help them help themselves.

Agusan del Norte

Hermelinda Bautista is a day care worker in sitio Subait, Bonifacio, Las Nieves, Agusan del Norte. She goes to school everyday to teach little children in their far flung community that is only accessible by a "habal-habal" motorcycle. Subait has rolling terrain; the thick forest that covers the sitio serves as a suitable habitat for the Malaria vector, Anopheles mosquitoes. Due to this, Subait is the second highest ranked sitio in terms of the number of cases of Malaria in the municipality of Las Nieves.

Nang Inday, as she is fondly called by her friends, has been a devoted barangay health worker since 1980s, even before she became a day care worker. Even though she enjoys teaching, Nang Inday continues to serve as a barangay Health Worker without further remuneration for this added duty. Nang Inday was trained in 2005 to perform and interpret the Rapid Diagnostic Test for Malaria. Before her training, Bonifacio was considered as top priority barangay in Las Nieves for Malaria control and prevention. The baranggay had more than 300 cases of Malaria before Nang Inday was trained. This has been dramatically reduced; there has not been a single case detected for the last three years.

Despite being busy teaching, Nang Inday has always had time to perform information, education, and communication campaigns in

her area. Trained in "personal selling", Nang Inday always continues to go on house to house campaigns, conduct periodic mass blood smearing, and even spearhead stream clearing activities. Municipal Malaria Coordinator Eric Mark Delicano even commended Nang Inday as for having high report submission rates for Malaria status, logistics, and personal selling as well as maintaining a high number of examinations performed.

Her exemplary work ethic has rightly been acknowledged in the provincial screening for the Best BHW award as part of the World Malaria Day celebration last April 2008 where Nang Inday bagged the first prize. When asked what pushes her to do her job, Nang Inday simply answered, "I love serving people. I always will."

Subic, Zambales

Ang dagat ng Subic ay nabalot ng dilim, malakas na hangin, matataas na mga alon, at walang makitang bangka na naglalayag sa laot. Sa araw na iyon ay kasalukuyang sumasalanta ang bagyong Ondoy sa ibang lugar ng Gitnang Luzon. Tumunog ang cellphone ni nanay Dading (bansag sa kanya ng mga kabarkada niyang mga bata), subalit nakatulog si nanay dahil naging araw ng pagpapahinga ang panahon ng bagyo. Anim na beses nag-"missed call" bago niya nasagot ang telepono. Narinig niya sa kabilang linyang nasa gitna na raw sila ng dagat para dalhin ang pasyenteng si Leo sa ospital dahil lupaypay na ang katawan nito. Kinailangang buhatin si Leo para maisakay siya sa bangka. May kasamang pagsisisi kung bakit nakatulog at di narinig ni nanay ang cell phone para sana nabigyan ng babala na delikado ang landas na tatahakin. Gumawa ng paraan si nanay para masalubong sa Bulungan ang pasyente at madala sa ospital.

Laging handa ang mga "mobile team" na sumaklolo sa panahong nasa panganib ang buhay ng pasyente, mapa-holiday, Sabado man o Linggo. Walang maririnig na reklamo mula sa kanila. Delikado ang panahon dahil sa bagyong Ondoy, delikado rin ang lagay ng pasyente. Mabilis na nakapangalap ng masasakyan ng pasyente mula Bulungan patungo sa San Marcelino District Hospital. Hanggang sa paglabas sa ospital naroon pa ang pag-alalay ng "mobile team" sa pagtitiyak na may makakain ang pasyente at may masasakyang bangka pauwi sa kanila. Ang pagtulong ni nanay at ng iba pang miyembro ay higit pa kaysa sa inasahan ng sinuman. Ito ay isang personal na pagtugon nang walang inaasahang kapalit.

Kasalukuyang nakakapagtrabaho na si Leo sa bukid. Ipinapaabot niya ang taus-pusong pasasalamat sa Dakilang May Hawak sa Lahat at sa mga Malaria volunteers at Tropical Disease Foundation sa serbisyong ibinigay sa mga katulad niya. Isa lamang ito sa din a mabilang na mga natugunan ng mga "mobile team" ng Subic.

Agusan del Sur

Ang probinsya ng Agusan del Sur ay bahagi ng CARAGA Region sa Mindanao. Binubuo ang Agusan del Sur ng 14 na munisipyo at 318 na baranggay. Anim sa mga nabilang na munisipyo ay "first priority" kung Malaria ang pag-uusapan, ayon sa "microstratification" na ginawa noong 2008. Apat naman ang "second priority" at apat din ang "third priority".

Sa loob ng nakaraang dalawang taon, malaki ang naitulong ng Tropical Disease Foundation, Inc. sa paglaban ng aming probinsya sa Malaria, dahil malaki ang ibinaba ng bilang ng pasyente at walang naitalang namatay nang dahil dito. Dahil na rin ito sa ating mga katuwang naming mga "Health Service Providers" na binigyan TDFI ng mga "trainings"; RDTs, BMMs, "medical technologists", BHWs, "midwives", nurses, at mga doctor at sa pagpapatupad ng ating layunin sa lahat ng mga "health facilities" na kailangang walang "stock-out" ng mga gamit at gamot para sa paglaban sa Malaria.

Ang mga pamamaraang nakatulong sa pagpapababa ng dami ng pasyente ng Malaria ay ang mga sumusunod na "vector control strategies": "indoor residual spraying", "long lasting insecticide treated bednet distribution", "bednets retreatment", "stream clearing" at [intermunicipal/interprovincial] "border operations" kung saan ang ating mga "local chief executives", mula sa antas ng probinsya hanggang sa antas ng baranggay, ay nagbibigay ng tulong at suporta.

Mayroon ding mga "agency partners" na tumutulong sa pagpapalaganap ng tamang impormasyon tungkol sa pag-iwas sa sakit na Malaria. Isa na dito ang "Department of Health". Pangalawa ang "Department of Education" na sa bawa't classroom ay nagtuturo ng "School-based Malaria Control Modules" at isinasama sa kanilang "lesson plan" sa ibang mga paksa. Dapat ding mabanggit ang mga nahikayat nating mga NGO/FBO na pumirma sa "Terms of Reference", kung saan napagkasunduang tutulong sila sa pagpapatupad ng mga "Malaria Control Program".


SEXY LIFEGUARD

PARTNERS

NAME OF ORGANIZATION/ PROGRAM	DESCRIPTION OF WORK
ARP (Agape Rural Program)	A faith-based organization operating in Palawan (main office), Leyte, Cagayan, and Nueva Ecija that provides health care services (mostly in the form of medical missions) to remote underserved areas populated by indigenous peoples. Their expertise on local health care, advocacy, and capacity building greatly assisted implementation, focusing on the vector control and social mobilization strategies of the project in two of the top endemic municipalities (one barangay each) in the province of Cagayan namely, Luga, Sta. Teresita and Sta. Clara, Gonzaga. They have strengthened the Barangay Malaria Action Committees resulting in the formulation of barangay action plans for Malaria control. They have also capacitated key players in community development, especially on the basics of Malaria and vector control. They have also contributed to increase Malaria awareness through community classes, assisted in the bednet distribution and retreatment, and conducted series of Barangay Malaria Action Committee (BMAC) meetings.
CRS (Catholic Relief Services)	A faith-based organization dedicated to promoting health and educational development of marginalized communities, particularly the indigenous peoples of Central Mindanao. On Obj1 -3, CRS focused technical expertise in the three (3) endemic barangays of Busok, Titulok, and Masiag in Bagumbayan, Sultan Kudarat eventually including Sto. Nino and Sumilil. It has established coordination/ networking with the BLGUs-- lobbying for the counterpart of said endemic brgys in terms of putting up diagnostic facilities, formation of action committees, and formulation of barangay legislation for Malaria control. CRS also assisted in facilitating the selection and training of target health volunteers for Rapid Diagnostic Test (RDT) and Basic Malaria Microscopy. They also participated in the launching of two (2) Microscopy Centers in Bgy Sto. Nino and Sumilil. Their participation has enhanced Malaria awareness of communities through Malaria educators who conduct basic orientations and educational campaigns. A series of Barangay Malaria Action Committee (BMAC) meetings were also were also conducted, resulting in feasible Malaria action plans. Monitoring was conducted as a ride-on activity during meetings
CHESTCORE (Community Health Education, Services and Training in the Cordillera Region)	A non-government organization committed to training community health workers, organizing and strengthening community-based health programs, and rendering medical services among the indigenous communities of the Cordilleras - Northern Philippines. The organization supported the three (3) project objectives in the Province of Kalinga particularly in the areas of Apatan, Ammacian, Ballayangon, and Dupag, Pinukpuk and Dupag, Tabuk. They have trained twenty five (25) volunteer students who assisted in conducting mass blood smearing in Ballayangon, Pinukpuk; coordinated community mobilization for the net distribution in Ammacian, Apatan, and Ballayangon; conducted awareness campaigns through symposia and film viewings; facilitated back to back community celebrations of the World Malaria Day and Cordillera Day. During these events, information on the cause and prevention of Malaria and school-based Malaria programs were disseminated.

NAME OF ORGANIZATION/ PROGRAM	DESCRIPTION OF WORK
SITMo (Save the Ifugao Terraces Movement)	A local organization committed to preserving the heritage of its indigenous peoples in Ifugao, Northern Philippines. The focus of their project has been strenghtening the capacity of the LGUs to support and manage MCP in their respective localities. The strategy was the development of the Local Health Code. SITMO provided capacity building to the local health officials on how to develop ordinances focusing on Malaria control and prevention. These ordinances went through the legislative process after which they were codified. This was piloted in Ifugao. The expansion phase covered the provinces of Isabela and Kalinga.
POST (People's Organization for Social Transformation)	A non government organization engaged in sustainable integrated area development, advocacy, technology transfer, capability/institution building , and community organization on health, gender and development, and socio-economic development interests of the indigenous peoples of the Cordilleras. POST's project primarily supported Objectives 1 and 3 activities for selected endemic barangays of Alfonso Lista, Aguinaldo, and Lamut in the province of Ifugao. The organization led the strengthening of the Ayod Community Health Teams (ACHTs) - institutionalization of vector control activities, orientation on social marketing of community health financing. These ACHTs were equipped on healthcare financing policy, system, and procedures, project proposal development, basic bookkeeping and accounting. Monitoring of 15 diagnostic facilities - RDT sites, RHUs, and hospitals located in these three endemic municipalities was also done to assist the PHO in ensuring their functionality.
PMO (Project Management Office - DOH)	A DOH-based TDFI Staff committed to take on and supervise the regional implementation of the program under RCC of R2. Intended to be the management support team to the Malaria Control Program of the DOH-Infectious Disease Office for the RCC Malaria grant, the PMO serves as the link between the PR and the Centers for Health Development (CHD) as well the provincial implementers.
Asian Collaborative Training Network (ACT) Malaria	An international network that focuses on technical collaboration and implementation of capacity-building activities on Malaria among neighboring countries in Asia. Responsible for the implementation of the training program under the RCC grant. Capacity building activities on diagnosis, clinical management, vector control and Procurement, Supply and Management (PSM) were the foci of the training programs.