



Asia Pacific Leaders Malaria Alliance

Regional Financing for Malaria Task Force (RFMTF)

The Role of Public Private Partnership in Infectious Disease Control

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The role of public private partnership in infectious disease control

Executive Summary

Myanmar, which has emerged from decades of isolation, is now embarking on a wide range of economic, financial and social reforms. Results of the reforms and encouragement of foreign direct investments have opened up opportunities including investments in large-scale infrastructure projects.

With the ASEAN Free Trade Agreement and the ASEAN Economic Community (AEC) enacted in 2015, South East Asia's borders will result in increased workforce mobility between a population of 600 million and the neighboring countries.¹ The large-scale infrastructure investments in Myanmar and improved transport links would increase the workforce for such projects as well as mobile populations not only within the country but also in the region.

Malaria remains a threat in the Asia and Pacific region and the emergence of artemisinin resistance in the region has become a major concern for the global health community. Malaria is a health priority in Myanmar accounting for 75 percent of malaria cases and deaths in the Mekong region.² Myanmar is also one of the hot spots for artemisinin resistance in the region along with Cambodia, Laos, Thailand and Vietnam.

There are reportedly 4.2 million cases of malaria in Myanmar each year, with 69 percent of the population living in malaria-endemic areas. In recent years, the emergence of artemisinin resistant malaria has threatened to unravel previous efforts in combating malaria globally, with no alternative anti-malarial available.

Artemisinin resistance is a growing concern with reported cases in the migrant and mobile population along the Thai-Myanmar border areas. As part of Myanmar's recent economic reforms, large-scale infrastructure, agriculture, mining, oil and gas exploration projects are attracting significant local and foreign investment and labor forces. A highly mobile workforce engaged in these large-scale projects poses a major risk to the spread of resistance especially in malaria endemic areas along the borders.

Private sector delivery mechanisms are not well documented and opportunities remain untapped for scaling up activities through private sector channels. The paper outlines various private sector delivery mechanisms in the country including but not limited to: 1) the accreditation scheme developed at the malaria forum for corporate sector engagement; 2) corporate social responsibility programs; 3) the SUN Quality Health Franchise clinics; and 4) the Artemisinin Monotherapy (AMT) Replacement project implemented by Population Services International (PSI).

One of the more recent mechanisms is the accreditation scheme implemented by the Myanmar Health and Development Consortium (MHDC), the Myanmar Business Coalition on AID (MBCA),

¹ ASEAN Community in Figures (ACIF) 2013. Jakarta: ASEAN Secretariat. February 2014. Page 1.

² <http://www.usaid.gov/HotTopics/Pages/Display.aspx?QID=857>

in collaboration with the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI), and the Ministry of Health convened a forum for corporate sector and non-state actor engagement for artemisinin resistance containment in Myanmar. The outcome of the forum was an accreditation scheme with signatories from the private sector agreeing to undertake actions to join the efforts against malaria. Corporate social responsibility (CSR) programs were also presented by two sectors: 1) TOTAL Oil and Gas and 2) High Tech Concrete Technology, a subsidiary of Shwe Taung Group of Companies.

Within the context of rapid economic reform efforts, there is a unique opportunity for the private sector to play a leading role in providing workplace services to employees and communities for malaria prevention, diagnosis and treatment thereby expanding service coverage and making an important contribution to the urgently required artemisinin resistance containment. Examples from such private public partnership (PPP) have shown that such investments in health increase workforce productivity by reducing labour losses due to ill health.³

1. Burden of Disease

Asia-Pacific had an estimated 134 million cases in 2002 (26% of worldwide cases) and 105,000 deaths in 2000 (9.4% of worldwide deaths). India bears the highest share of cases with approximately 45% of estimated cases in the region. Five countries (India, Myanmar, Bangladesh, Indonesia and Papua New Guinea) account for approximately 93% of the death toll in the region.⁴ The Asia-Pacific region has already made significant progress, reducing the number of malaria cases and mortality rates by 25 percent since 2000. However, despite this progress, malaria remains a major threat, with approximately 30 million cases and 42,000 deaths in the region each year.⁵ The Asia-Pacific region bears the largest burden of malaria outside of Africa with 14% of global malaria cases and 7% of global deaths.⁶

There are an estimated 4.2 million cases of malaria in Myanmar each year, with around 75 percent of the confirmed cases caused by *P.falciparum*. The estimated number of malaria deaths is around 9,100 with fever cases estimated to be around 18.8 million. Myanmar accounts for approximately one fifth of the Greater Mekong Sub-region (GMS), but accounted for more than 50 percent of the region's malaria cases and around 75 percent of malaria deaths in 2007.⁷

Artemisinin Resistance

Currently, the emergence of artemisinin resistant malaria in Mon, Kachin, Kayah, Kayin, Tanintharyi states and Bago divisions in Myanmar, as well as in the Greater Mekong Region, is posing a threat to the global malaria control and elimination efforts. Artemisinin-based Combination Therapy (ACT) is presently the only effective first line treatment for malaria. If artemisinin resistance is not contained in the region, its spread to other regions in the world

³ Examples include: Rotarians Against Malaria in PNG; AngloGold Ashanti in Ghana; Shell Foundation in the Philippines for Global Fund supported programs for malaria.

⁴ <http://rbm.who.int/gmap/3-4.html>

⁵ AusAID, Consensus on Malaria Control and Elimination in the Asia-Pacific. 2 November 2012, p. 7

⁶ <http://www.oilsearchhealthfoundation.org/2012/11/21/malaria-2012-summit-in-sydney/>

⁷ WHO. Malaria in the Greater Mekong Subregion, Regional and Country Profiles, 2010.

could have negative public health consequences with no available alternative antimalarial medicines in the foreseeable future. A highly mobile workforce engaged in large-scale projects poses a major risk to the spread of resistance especially in malaria endemic areas along the borders.

In April 2011, the Strategic Framework for Artemisinin Resistance Containment in Myanmar (MARC) 2011-2015 was launched to address the rise of artemisinin resistance in Myanmar. This was followed by the Emergency Response to Artemisinin Resistance (ERAR) in the Greater Mekong Region in June 2013. Under MARC, malaria endemic regions have been divided into three zones, with Tier 1 areas or townships showing credible presence of artemisinin resistance, Tier 2 areas being townships bordering Tier 1 areas with significant movement of persons from Tier 1 areas, and Tier 3 areas with no presence of artemisinin resistance and movement of persons from Tier 1 areas. However, as of early 2014, townships initially included in Tier 2 areas have been reclassified to Tier 1, for a total of 52 townships covering a population of approximately 10.8 million in Tier 1^{8,9}

2. Financing Landscape and Funding Gap

International disbursements to malaria-endemic countries have increased, from less than USD 100 million in 2000 to USD 1.97 billion in 2013.¹⁰ According to the Global Fund, an estimated USD 14 billion expenditure on malaria is required over the next three-years from 2014-2016. The majority of funding will be spent on malaria diagnostic testing using rapid diagnostic tests (RDTs), treatment with artemisinin-based combination therapy (ACT) through public and private health facilities, vector control interventions including long-lasting insecticide treated nets (LLINs), indoor residual spraying (IRS), and malaria case management. Additional intervention activities will include behavior change and communication, program management, and monitoring and evaluation of programs.¹¹

Current partners and donors for malaria in Myanmar include the Global Fund¹², US President's Malaria Initiative (PMI), 3MDG Fund, JICA, UNICEF, WHO, and the Bill and Melinda Gates Foundation¹³. Available funding for 2012-2016 from all donors total USD 220,337,936.¹⁴ The total estimated budget for containment, control and elimination for the period 2012-2016 is USD 451,033,258. Control and elimination budget for 2012-2016 amount to USD 333,481,813 based on WHO estimates for the cost of comprehensive control program. The containment budget for the same period is estimated at USD 117, 551, 445 based on WHO estimates for cost of containment activities in 2012. The total funding gap for 2012-2016 is USD 230,695,322.¹⁵

⁸ There are 21 townships in Tier 1 including 10 townships in Tanintharyi, 10 townships in Mon and 1 township in Bago East. Tier 2 include a total of 31 townships: 7 townships in Kayin State, 7 townships in Kayah State, 13 townships in Bago East and 4 townships in Kachin State.

⁹ Strategic Framework for Artemisinin Resistance Containment in Myanmar (MARC) 2011-2015, p. 43.

¹⁰ WHO Presentation. WHO SEARO GTS Consultation Meeting, April 28-29, 2014.

¹¹ The Global Fund Fourth Replenishment: Needs Assessment 2014-2016, April 2013.

¹² Include funding from Regional Artemisinin Initiative.

¹³ BMGF funding to PSI for monotherapy replacement.

¹⁴ Including domestic financing.

¹⁵ WHO gap analysis, Myanmar, May 2014.

Given the overlap between malaria control and artemisinin resistance containment, additional funding will be needed for specific initiatives to manage artemisinin resistance, especially with the recent reclassification of Tier 1 to include all Tier 2 areas/townships for a total of 52 townships in Myanmar.

3. The Role of the Private Sector

Myanmar, which has emerged from decades of isolation, is now embarking on a wide range of economic, financial and social reforms. According to the World Bank, foreign direct investment in Myanmar rose from USD 1.9 billion in 2011-2012 to USD 2.7 billion in 2012-2013.¹⁶ Results of the reforms and encouragement of foreign direct investments have provided new investment opportunities for foreign investors. Figures from the Directorate of Investment and Company Administration indicate that by the end of the first quarter of 2014, the amount of foreign investment permitted in Myanmar totaled USD 46.2 billion and the amount of investment by citizens at USD 4.5 trillion.¹⁷

In addition to individual investment projects, there are currently three Special Economic Zones (SEZs) in Myanmar – Thilawa SEZ and Kyaukphyu SEZ in the Southwest and Dawei in the Southeast. Given the country's strategic location between India and China, several cross-border infrastructure projects are also underway to link Southeast Asia and China with South Asia through its part in the ASEAN and Asian highway networks, the Greater Mekong Sub-region highways, and roads between Myanmar and China, with Myanmar accounting for vital segments of these regional transport networks. The combined length of segments of these international highways passing through Myanmar is an estimated 5,000 km. Other road segments provide important trade links with neighboring countries, including a 427 km road segment in the north linking China and India.¹⁸

Given the country's significant workforce and natural resources, the main categories for investment are oil and gas, power, manufacturing, mining, and construction. Investment in the five sectors has resulted mainly in large-scale projects in remote locations, leading to public health vulnerabilities demonstrating that health and development agenda is interlinked, i.e. the drivers of economic growth are also drivers of infectious diseases such as malaria.

While the malaria prevalence rates have declined in recent years, the emergence of artemisinin resistance threatens to unravel all previous efforts, domestic and regional, against malaria. The increase in large-scale projects with mostly migrant workers in remote, heavily forested areas can potentially speed up the spread of artemisinin resistant malaria. The Dawei SEZ, for example, includes a deep sea port project designed to serve as economic land bridge connecting Andaman Sea on the Myanmar side through Thailand and out to South China Sea creating great opportunities for expanding up-stream industries and linking supply chain in Thailand and in the region. Another component of the Dawei SEZ is the Dawei Transport Link (Myanmar-Thailand Highway), built to link Dawei seaport to an industrial estate in Thailand, resulting in

¹⁶ Economic Update, Myanmar Year in Review 2013, Oxford Business Group, 6 January 2014
http://www.oxfordbusinessgroup.com/economic_updates/myanmar-year-review-2013

¹⁷ Directorate of Investment and Company Administration, Ministry of National Planning and Economic Development - <http://www.dica.gov.mm/dicagraph.htm>

¹⁸ Asian Development Bank, Myanmar in transition: Opportunities and challenges. November 2012. P. 29

more cross-border movement of persons than ever before. The Asian Highway Network, a 141,000km network of roads running across 32 countries, will create workforce mobility on an even larger scale than the projects in Dawei. It is being built with an intention to improve transport facilities throughout these nations and provide road links to Europe. The highway covers 3,003km in Myanmar.¹⁹ With the ASEAN Free Trade Agreement and the ASEAN Economic Community (AEC) enacted in 2015, South East Asia's borders will result in increased workforce mobility between its total population of over 600 million and neighboring countries.²⁰

The McKinsey Global Institute estimates that a total of US\$ 650 billion in investment would be required by 2030 to support Myanmar's economic growth potential, with a projected \$320 billion in infrastructure alone.²¹ Such large-scale infrastructure projects emphasize the need for synergy and early coordination of activities between private sector and public sector actors to cater to the health of increasing numbers of the workforce as well as surrounding communities for malaria prevention and control activities.

Shared Value Proposition

The role of private sector contribution to infectious diseases and health systems strengthening may vary based on the shared value proposition of each company. For example, the Global Fund private sector engagement operates in the form of: a) Cash Contributor (e.g. COMIC Relief, Cirrus Oil, Takeda, Lutheran malaria initiative); b) Grant Implementer (e.g. AngloGlod Ashanti, Shell Foundation, Oil Search Ltd.); c) Pro bono Goods and Services Provider (e.g. Coca Cola²², Standard Bank²³, Ecobank, Sony); and, d) Participant of market shaping initiatives (e.g. Product RED²⁴ Campaign).

Other market shaping initiatives include Innovation Coalition (e.g. Supply chain capacity building, Grant oversight software, mHealth etc.), Country Business Alliance (e.g. Mozambique, Vietnam), and Anti-counterfeit Collaboration.²⁵

The role of Private Sector contributions to health in Myanmar is currently being delivered through a number of channels: 1) an Accreditation Scheme under a Private Public Partnership arrangement; 2) corporate social responsibility (CSR) programs; 3) social franchising model (e.g. PSI's SUN clinics); and 4) ACT subsidy schemes under ACT Watch.

¹⁹ <http://www.roadtraffic-technology.com/projects/asian-highway-network/>

²⁰ ASEAN Community in Figures (ACIF) 2013. Jakarta: ASEAN Secretariat. February 2014. Page 1.

²¹ "McKinsey Global Institute, Myanmar's moment: unique opportunities, major challenges, June 2013. P. 4

²² Coca-Cola is sharing its expertise in Tanzania to strengthen the supply chain for essential drugs and medical supplies.

²³ Standard Bank, for example, is providing pro bono financial management support to assist implementers of malaria activities in selected countries in Africa.

²⁴ (RED) was created by Bono and Bobby Shriver in 2006 to engage the fight to end AIDS in Africa. (RED) branded products and services, when purchased, trigger corporate giving to the Global Fund.

²⁵ Global Fund Presentation, Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance in Myanmar", November 25-26, 2013.

3.1 Accreditation Scheme under Private Public Partnership Arrangement

As part of the efforts to engage the corporate sector, MHDC in collaboration with MBCA, the Ministry of Health (MOH), and the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI)²⁶, held the Malaria Forum on “Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance in Myanmar” in Yangon on November 25-26, 2013. The purpose of the Forum was to complement MARC’s containment strategy through public private partnership in the workplaces, using the UMFCCI and other Chambers of Commerce in the country as the main vehicle for private sector engagement.

The forum was the first in the country to engage the corporate sector to discuss actionable steps to implement malaria control activities for their workforce and to support containment of artemisinin resistance. It was convened in order to engage large private sector employers into the WHO Global Emergency Response to Artemisinin Resistance. Based on this global plan, the Greater Mekong Sub-region action plan was also developed as well as the Myanmar Artemisinin Resistance Containment strategy (MARC). All plans stress the importance of ACT and to continue to safeguard the effectiveness of artemisinin.

An outcome of the forum was a list of 17 companies²⁷ signing on to an accreditation scheme, agreeing to adopt in whole or in part, the “Corporate Commitment to Combat Artemisinin Resistance in Myanmar”. Commitments pledged by signatories include:

- To educate themselves on diagnosis and treatment of malaria, and ultimately set up facilities to provide free universal access to their workforce with quality assured drugs within 24 hours of onset of illness;
- To learn and educate their staff on appropriate means of prevention (LLIN, IRS) and provide free universal access to preventative measures for the workforce; and
- To collaborate with Myanmar public health services and the National Malaria Control Program to promote universal district coverage, ultimately through the free provision of quality assured malaria diagnosis, treatment and prevention.

Under this private public partnership arrangement, the UMFCCI and regional Chambers of Commerce are able to provide a neutral platform to engage the corporate sector, and the ability to draw on business associations and large-scale corporate sector entities. MHDC and MBCA together can provide communication and coordination support, facilitation between partners, private sector accreditation scale-up, dialogue with business leaders, promotion of CSR activities, and IEC and advocacy work. The Ministry of Health and its partners will take on provision of commodities, services, trainings, monitoring and evaluation. Corporate partners, in return, will need to report to MOH on malaria cases and bednet distribution.

²⁶ UMFCCI is Myanmar’s largest not-for-profit business federation, representing 10,854 local companies, 1,656 enterprises, 770 foreign companies, 185 co-operatives and 2,898 individuals.

²⁷ The 17 companies include 3 associations, 1 local NGO and 1 international NGO. Additional 2 companies have signed up since November 2013 totaling 19 companies.

Planned activities include: i) scale up and broaden the reach to at least 100 companies and organizations by the end of 2015; ii) conducting a similar forum with the Mandalay Chamber of Commerce in order to raise awareness and to engage the corporate sector in the Mandalay Division area; iii) expanding private sector mapping in other states and divisions; iv) selecting one or two large corporations/companies to jointly develop a mechanism for tracking mobile workers, to serve as a model for replication; v) improve information availability in local language, as well as advocacy and outreach through media, documentation of best practices, including CSR and community awareness programs; and vi) initiating dialogue with corporate sector signatories to address sustainability issues (e.g. revolving fund, co-financing schemes).

3.2 Corporate Social Responsibility (CSR) Programs

Within the context of rapid economic reform efforts, there is a unique opportunity for the private sector to play a leading role in providing workplace services to employees and communities for malaria prevention, diagnosis and treatment thereby expanding service coverage and making an important contribution to the urgently required artemisinin resistance containment.

A number of private companies are already engaged in health service delivery for their workforce and surrounding communities in Myanmar. Two such examples from TOTAL Oil and Gas and High Tech Concrete Company are listed below. While not all companies have on-site health facilities for employees, TOTAL Oil and Gas provides a best practice model of corporate sector contribution by providing an integrated approach to health care delivery as well as to other social-economic programs.

3.2.1 TOTAL Oil and Gas Company

TOTAL's Yadana socio-economic program in pipeline region was launched in 1995. It was initially intended for residents of the 13 villages closest to the pipeline, but was extended to approximately 30 villages in 2001, 2005 and 2012. TOTAL's CSR commitments include: professional management of stakeholder relationships focusing on neighboring communities; controlling and reducing the impact on the socio-economic environment; and optimizing TOTAL's contribution to local and community development.

The socio-economic program covers health, education, agriculture, breeding, infrastructure development and microfinance activities. TOTAL works in partnership with NGOs to support health care and social welfare programs. TOTAL's socioeconomic team is comprised of 461 members including 106 Professional Staff and 355 Community Participants. TOTAL spent USD 30.84 million between 1995 and 2012. The initial years focused on the construction of infrastructure, roads, bridges, hospitals, health centers and schools. The budget for 2012 was USD 3.58 million.²⁸

Along with its other CSR programs, TOTAL conducts pre-employment medical examinations and annual medical check-ups for all its employees. Medical Officers or Specialist Doctors also

²⁸ <http://burma.total.com/myanmar-en/the-socio-economic-program/the-socio-economic-program-200171.html>

conduct health talks four times a year, helping inform and induce behavior change on health within the workforce.

Together with other health programs, TOTAL has a malaria program for workers in the Yadana pipeline area on the border with Thailand. The program focuses on detection, treatment and prevention efforts. Its clinics are equipped with microscopes and Immuno-Chromatographic Tests for rapid diagnosis. All confirmed cases for malaria receive early treatment, including Day-3 parasitaemia microscopic examinations after undergoing treatment for *P.falciparum* infections. More complex cases are referred to village clinics via radio communication and ambulance. The program's prevention scheme includes regular impregnation of bednets with 97% coverage for 25 villages in the pipeline area, larva control activities throughout the rainy season, and routine health talks. Malaria diagnosis and treatment are carried out strictly in accordance with national guidelines set by the Department of Health. Since its launch in 1997, the program has treated 58,988 out-patients, in addition to 5,004 cases requiring hospitalization.

TOTAL also has doctors present at clinics in each of its work sites, with an in-house doctor and clinic at its Yangon office and two doctors on a rotational basis at the Yadana oil platform, pipeline center and metering station. Most notable is TOTAL's healthcare coverage for both staff and their families. Coverage for staff include 100 percent reimbursement on expenses for vaccination and immunization, annual medical examinations, hospitalization in-country or overseas, and HIV blood test and treatment, and 80 percent reimbursement for x-ray, lab tests, dental care, eye care (lens and treatment), and consultation and medicines. Coverage for spouses and children under 18 years include 100 percent reimbursement on HIV blood test and treatment, vaccination and immunization, and 80 percent reimbursement on long lasting serious illnesses, hospitalization in-country or overseas, and preventive annual medical examination for spouses over 40 years.

The company's CSR activities also extend to the community surrounding its work sites. Past and current activities include the upgrading of Kanbauk hospital facilities including water supply and staff housing, establishing 8 village clinics and 16 sub-village clinics (making available 10 doctors in total with a ratio of 1 doctor available for 8,000 inhabitants), supplying medicines, ambulance, and radio communications, and providing over 1.13 million free health consultations. Additionally, TOTAL has trained 34 community health workers and 36 auxiliary midwives within the local communities. Nationwide healthcare support programs include providing regular doctor visits, treatment, medicine, referrals, and hospitalization for 7 government orphanages and the Yadana Foster Home; the Blindness Prevention Program with Helen Keller International; HIV Care Program with UNION; sponsoring Myanmar doctor for training in France (with specialization in HIV/AIDS); provision of diagnosis and treatment of 1,071 Tuberculosis cases; vaccinations for 8 childhood diseases, tetanus for pregnant women, growth monitoring and antenatal care; and transporting medical equipment and medicines from France to be donated to government hospitals.²⁹

²⁹ TOTAL Presentation, Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance in Myanmar", November 25-26, 2013

At present, 50,000 people in the pipeline area have access to education, public health services, and road infrastructure, beyond the residents of the 33 villages.³⁰

3.2.2 Shwe Taung Group of Companies: High Tech Concrete Technology

Shwe Taung Group of Companies presents another example of CSR work in malaria. Its subsidiary companies include Golden Tri Star in the construction sector for roads, bridges, and hydropower stations; Shwe Taung Energy, Octagon International, and Octagon International Services in trading and logistics; High Tech Concrete and Shwe Taung Cement in manufacturing cement and construction materials; and High Tech Concrete Technology and Future in energy and infrastructure investment including gas stations and toll roads construction and operation.

Most of the Shwe Taung Groups of Companies employ their own nurses, transferred from the company-owned Asia Royal hospital. Suspected cases are referred to the closest government hospital. Some of the company's projects employ a medical doctor, who is responsible for both malaria testing and treatment. However, there is no company-wide treatment protocol. Cases with complications are referred to the government hospital (often more than two hours away). The company pays for hospital bills and other medical expenses on behalf of the staff.³¹

Shwe Taung's subsidiary, High Tech Concrete Technology is also contributing to national malaria control and prevention efforts. The company's series of hydropower project sites are located along the Baluchaung River, Southeast of Loikaw in Kayah State (Tier 1). Malaria prevention and control activities began shortly after the first cases of malaria were reported in its project sites. On site health care centers are available to treat employees in accordance with the National Malaria Treatment guidelines. Employees are also entitled to paid sick-leave for up to five days. Additionally, blood test results and monthly patient lists are reported to the Kayah State Malaria Prevention and Control Department for surveillance.³²

Control efforts are also reached through residual spraying at labor barracks and administrative offices, while fumigation of mosquitoes on site camps are done five times annually. Along with workshops on malaria prevention and control, insecticide tablets and bednets are also distributed throughout the workforce. As a result, High Tech reported a dramatic reduction in malaria infection within its project site workforce from 45 percent in 2009, to 3 percent by 2013.³³

3.3 Social Franchising Model: SUN Quality Health Franchise

Social franchises are networks of private health providers that use commercial franchising methods to achieve social rather than financial goals. They organize multiple, existing, private providers into contractually obligated networks. The franchisees are trained and supported to provide new, or improved, services in addition to their normal patient treatment regimens. The

³⁰ <http://burma.total.com/myanmar-en/the-socio-economic-program/the-socio-economic-program-200171.html>

³¹ Ergo, A. Report on Responding to the Threat of Artemisinin Resistance in the Greater Mekong Subregion: Options for Myanmar Corporate and Non-State Actors, Broad Branch Associates, December 31, 2013, p. 10.

³² High Tech Concrete Technology Presentation, Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance in Myanmar", November 25-26, 2013

³³ Ibid.,

goals of social franchising are to improve quality, increase access to care, expand the affordability of services and rapidly increase the number of delivery points for important public health services. This approach is relevant in Myanmar where 60 to 75 percent of the population is believed to seek basic health care from private providers.³⁴

PSI³⁵ operates two large social franchises in the country: the SUN Quality Health franchise, which supports private clinics, and the SUN Primary Health, which supports Community-based Workers (CBWs). A CBW under the SUN Primary Health franchise typically covers the population of one village and is paid incentives of roughly USD 0.5 per patient tested and a similar amount per patient treated, with a monthly ceiling of around USD 25. The CBW provides a package of services that includes malaria testing and treatment. Likewise, franchisees that are part of the SUN Quality Health network offer a comprehensive package of services. In both networks, franchisees get the same products as those sold by PSI (at a subsidized price) to the distributor AA Medical. Data from both franchises is compiled by PSI and shared with the Ministry of Health on a monthly basis.³⁶ The main advantages of the SUN franchise for malaria control & elimination are: 1) qualified health professionals that agree to adhere to a set of minimum standards; 2) professionals are trained, supervised and monitored; and 3) data is shared with the Ministry of Health (e.g. RDT tests).³⁷

PSI is utilizing ACTwatch methods designed to assess change over time in the antimalarial market. ACTwatch is a multi-country research project that conducts surveys in 10 malaria endemic countries in Africa and Asia including Myanmar.

3.4 Monotherapy Replacement: ACT subsidy scheme and social marketing

In addition to running the two franchises describe above, PSI also combines ACT subsidies and social marketing to incentivize private sector drug vendors to sell quality assured artemisinin-based combination therapy instead of oral artemisinin monotherapy, under the Monotherapy Replacement Project funded by DFID and the Bill and Melinda Gates Foundation.

The widespread use of partial courses of oral artemisinin monotherapy is a challenge for resistance containment efforts. Therefore, the aim of the project is to rapidly replace artemisinin monotherapy with quality assured artemisinin-based combination therapy. The project was launched after PSI had demonstrated that the private sector was importing around 1.2 million adult-equivalent treatment doses of oral artemisinin monotherapy per year, distributed by a few local firms, and after the leading firm, AA Medical, had accepted to work with the Ministry of Health and PSI. Under the project, PSI procures high quality three-day treatments, repackages them so as to limit the sale of partial treatments, and sells these treatments to the distributor AA Medical based on purchase requests. Donors provide a subsidy to reduce the price. This is accompanied by intensive behavior change campaigns implemented

³⁴ Ergo, A. Report on Responding to the Threat of Artemisinin Resistance in the Greater Mekong Subregion: Options for Myanmar Corporate and Non-State Actors, Broad Branch Associates, December 31, 2013.

³⁵ PSI provides malaria control services in nearly 200 townships through SUN* with 1500 physicians/clinics (900 for malaria) and 2000 village health workers (1500 for malaria).

³⁶ Ergo, A. Report on Responding to the Threat of Artemisinin Resistance in the Greater Mekong Subregion: Options for Myanmar Corporate and Non-State Actors, Broad Branch Associates, December 31, 2013, pp. 8-9.

³⁷ PSI Presentation, Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance in Myanmar", November 25-26, 2013.

by PSI. Having an affordable alternative to oral artemisinin monotherapy in place made it possible for the Myanmar Food and Drugs Administration (FDA) to ban their import.³⁸

As a result of these efforts, the market share of ACTs in the country grew from 3% to 73% in nine months time. In comparison to the social franchise model described above, which provides better data, more control and higher quality, the main strength of the ACT subsidy approach is its reach, both in terms of geographical area and population groups.

The main advantages of the informal distribution model for monotherapy replacement is the reach, speed, scale and cost-efficiency mainly due to: an effective and sustained donor subsidy; a robust and centralized supply chain; an enforced FDA ban on oral artemisinin monotherapy importation; intensive provider and consumer behavior; change communications and promotional activity; effective and transparent communication between all partners.³⁹

4. Challenges and Needs for Future Research/Action

The four private sector delivery mechanisms described above vary in approach and scale. The TOTAL model presents an integrated model as part of their socio-economic program that covers health, education, water and sanitation etc. whereas the accreditation model provides mechanism for scale-up of companies to implement malaria control and prevention activities at the workplace. PSI model of engagement with private providers utilizes social franchising networks and social marketing approach to incentivize private drug vendors.

The disadvantage of the accreditation scheme is that the uptake is based on the notion of the 'coalition of the willing' and therefore the model cannot strategically target companies and firms for artemisinin resistance containment areas or in securing a critical mass of large employer companies. However, facilitators or the coordinators of the PPP accreditation scheme can play an important role in providing a menu of options to the signatories of the scheme in order to guide the companies to make an informed choice tailored to the needs of the companies.

TOTAL's best practice model shows that TOTAL is able to provide the integrated approach mainly due to its significant investments in the social-economic program allocating more than USD 3 million annually. Other large companies maybe persuaded to follow TOTAL's CSR model for replication if sizable resources and budgets can be allocated for their respective CSR programs.

The main limitation of the SUN franchise in the context of malaria control & elimination is the population reach as the social franchises are somewhat concentrated in the central parts of the country and coverage in the border areas is limited particularly in remote border areas, and other places affected by conflict. Small and medium enterprises (SMEs) maybe opted to support

³⁸ Ergo, A. Report on Responding to the Threat of Artemisinin Resistance in the Greater Mekong Subregion: Options for Myanmar Corporate and Non-State Actors, Broad Branch Associates, December 31, 2013, pp. 8-9.

³⁹ PSI Presentation. Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance in Myanmar", November 25-26, 2013.

existing or new social franchising models and/or the ACT subsidy schemes in order to improve the reach and coverage in these areas.

A major challenge for ACT subsidy approach is that ACTs are usually given without testing.⁴⁰ Various ways to incentivize the use of RDTs by private outlets are being piloted: (i) product subsidy (through the same channel), (ii) buy 10 get 1 free, and (iii) interpersonal supervision visits. The data from these pilots is currently being analyzed.⁴¹

4.1 Need for further research/action

Business and workforce mapping: A private sector mapping exercise was conducted by Myanmar Market Research and Development (MMRD) in September 2013 for businesses in Dawei, Myeik and Kaungthaung Districts in Tanintharyi Division, to gauge the potential for private sector engagement in malaria response. The region was chosen for its Tier 1 artemisinin resistance status and concentration of migrant laborers and mobile population in high-risk working environments such as palm oil and rubber plantations, oil and gas pipelines and mining. Research included 22 interviews with business leaders and government personnel, demographics, health infrastructure assessment, dominant economic sectors in the region, malaria incidence, CSR programs by local businesses especially those including malaria, malaria activities by the government and NGOs, and potential for public private partnerships. Additionally, the research included the use of GPS data to map business locations against population density and malaria prevalence.

In order to effectively engage with the private sector, additional business and workforce mapping activities need to be carried out in endemic areas, particularly in the newly designated Tiers 1 zone. Currently, data availability is limited regarding private sector in terms of the demographics, health infrastructure, economic sectors, size of the workforce, and the nature of work (e.g. plantations, forestry, mining etc.).

Evidence for building a strong business case for malaria prevention for companies and corporate sector: The corporate sector partners at the Malaria Forum in November 2013 expressed great interest in working with the public sector to join the efforts on malaria control and artemisinin resistance. Moreover, a business mapping conducted in the Dawei District by MMRD also revealed that corporate sector respondents were in fact willing to contribute in-kind through accommodation, logistical arrangements, and transportation for health officials or NGO workers who could provide health education at their worksites.⁴² However, to further encourage the corporate sector to engage in malaria activities, there is a need to gather evidence to build a strong business case for employers to prioritize malaria in their program especially in light of the fact that in many parts of the country, incidence of malaria has declined in recent years.

⁴⁰ According to some of the interviewees, while GPs could get the commodities for free from some of the NGOs, many of them prefer to get the ones sold by AA. That way, they are not forced to do testing and to record/report data.

⁴¹ Ergo, A. Report on Responding to the Threat of Artemisinin Resistance in the Greater Mekong Subregion: Options for Myanmar Corporate and Non-State Actors, Broad Branch Associates, December 31, 2013, pp. 8-9.

⁴² Myanmar Marketing and Research Development. Private Sector Mapping for Potential Engagement in Malaria Response, Dawei District. December 2013.

Research on use of Technology and Innovative Approaches: The country's mobile coverage is due to increase exponentially from 10 percent connectivity to 95 percent connectivity within the next few years through nationwide service provision by two international telecoms companies Ooredoo and Telenor. In a private public partnership in collaboration with telecoms companies, mhealth and ehealth applications can be used to strengthen real time reporting and improving monitoring and evaluation systems.

Strengthen disease surveillance system: Myanmar's disease surveillance system also has major constraints, mainly due to the lack of human and financial resources required for data collection and database maintenance. A weak surveillance system has made it difficult to obtain accurate data and information for monitoring and evaluation, needs assessments, and tracking of artemisinin resistance. However, a more efficient surveillance can be introduced using information technology (e.g. mobile technology). Mhealth and eHealth applications can be used to upgrade the current surveillance system, thereby establishing a more cost-effective and better-managed system. According to the Health Information System Five Year Strategic Plan (2011-2015) of the Ministry of Health has allocated a total of USD 3,265,500 with USD 75,000 on improving the disease surveillance system and USD 672,000 on information technology development for improved data sharing and management.⁴³

Provide support for increase in human resources for public sector: Malaria volunteers and village health workers need to be trained, equipped, and financially supported to step up diagnosis, treatment, and surveillance in rural areas. In malaria endemic rural areas, private clinics are scarce and the majority of the population seeks treatment at public health facilities, and where such facilities are not within reach, relies on village health volunteers and midwives. While the National Malaria Control Program and partner organizations are working to expand volunteer networks, volunteer attrition rates are high and only around 9,000 have been trained for an estimated 15,000 volunteers needed in endemic areas. Studies indicate that adequate surveillance of malaria prevalence would require 4-5 million diagnostic tests each year.⁴⁴

5. Opportunities for Private Sector Delivery

A number of private sector companies are already engaged in malaria control and prevention activities. For example, Myan Shwe Pyi Tractors Ltd (MSP), the authorized Caterpillar Dealer for Myanmar, has signed contracts with some hospitals. These hospitals agree to provide health care on credit to MSP's employees and their immediate family. MSP pays the bills up to an annual ceiling equivalent to one-month salary. Additional spending may be covered on an exceptional basis. Other companies are also engaged in IRS activities. Both the Shwe Taung Development Company and TOTAL conduct monthly spraying of all offices, lodging and canteens. Some companies already distribute LLINs to their permanent staff. The companies typically finance these activities (e.g. Shwe Taung Development Company and coffee estate run

⁴³ Ministry of Health. Five-Year Strategic Plan (2011-2015), Health Information System, Department of Health Planning.

⁴⁴ Analysis of gaps related to the national response to Malaria and recommendations to the 3MDG Fund, October 2012.

by Yoma Strategic Holdings). At the Italian-Thai Development Company (ITD) site, which employs 3,742 migrant workers, URC's CAP-Malaria is piloting a LLIN lending scheme.⁴⁵

It is difficult to estimate the proportion of overall need that can be delivered privately for malaria activities although opportunities exist to leverage on existing and new private public partnerships, business coalitions and associations at the national and regional levels.

There is an opportunity to expand the number of private and corporate sector partners through local and international private foundations and other international associations and accreditation schemes. The accreditation model implemented in Myanmar maybe replicated in other countries in the region but will be highly dependent on the strategic nature of the partnership, leadership and commitment of relevant entities.

For Myanmar, the UMFCCI is a willing partner in the public-private partnership for malaria and there is opportunity to leverage on a number of activities under UMFCCI's stewardship. These opportunities include:

- 1) Expansion of private sector engagement through UMFCCI's newly created CSR Unit for infectious disease control;
- 2) Establishing linkages with the UN Global Compact program, of which the UMFCCI and more than 200 local companies are signatories to the agreement; and,
- 3) Ensuring inclusion of Health Impact Assessments in the Environmental and Social Impact Assessment (ESIA) for future large-scale investment projects. With the influx of foreign direct investments, the Myanmar Investment Commission (MIC) Notification 1/2013 requires an ESIA for any company investing in exploration and production of minerals, oil and natural gas, construction of large dams, hydropower and other large-scale electricity production, large-scale agricultural activities, large-scale manufacturing and construction activities.⁴⁶

Conclusion

The Sydney Malaria Summit emphasized the importance of collective regional action to achieve these goals – action that will save lives and economic loss. The Summit also noted that although there are some private sector employers providing services for malaria prevention, diagnosis and treatment for their employees and communities at workplace settings and the potential to increase the coverage of these services. Such investment could increase workforce productivity by reducing labor losses due to ill health.⁴⁷

Containing artemisinin resistance requires collaborating with the corporate sector, particularly with companies working in endemic areas that employ migrant and mobile workers as they can play an essential role to reach such populations at risk. Engaging the corporate sector and other non-state actors will be central to the success of malaria control and artemisinin resistance containment efforts in the country.

⁴⁵ Ergo, A. Report on Responding to the Threat of Artemisinin Resistance in the Greater Mekong Subregion: Options for Myanmar Corporate and Non-State Actors, Broad Branch Associates, December 31, 2013

⁴⁶ Myanmar Investment Commission Notification No. 1/2013, 31 January 2013.

⁴⁷ AusAID, Consensus on Malaria Control and Elimination in the Asia-Pacific. 2 November 2012

**Key Organizers of the Malaria Forum on
Corporate Sectors and non-state Actors Response to the Threat of Artemisinin Resistance
in Myanmar**

Union of Myanmar Chambers of Commerce and Industry (UMFCCI) is Myanmar's largest not-for-profit business federation, representing 10,854 local companies, 1,656 enterprises, 770 foreign companies, 185 co-operatives and 2,898 individuals. UMFCCI provides services to the private sector and acts as a bridge between the State and the private sector through a vast network of chambers and associations affiliated with UMFCCI. In the international arena, UMFCCI is a member of the Paris-based International Chamber of Commerce (ICC) and the ASEAN Chamber of Commerce and Industry (ASEAN-CCI), the (BIMST-EC), Greater Mekong Sub-region Business Forum (GMS-BF), Joint Economic Quadrangle Committee (JEQC).⁴⁸ Under the stewardship of UMFCCI, it will be able to bring together an array of private sector actors ranging from small and medium sized enterprises (SMEs) to large industries (e.g. extractive industry, forestry, tourism etc.).

Myanmar Business Coalition on AIDs (MBCA) is a local NGO focused on private sector mobilization to involve the business sector in the national HIV/AIDS response, which will benefit the business sector as well as the country's national program with business complementing with its expertise and resources. In recent years MBCA has expanded its mandate to meet the needs of the business community in fulfilling their CSR. MBCA therefore has a strategic direction to mobilize local township businessmen into establishing independent township business coalitions.

Myanmar Health and Development Consortium (MHDC) is a locally established and managed firm comprised of local, regional and international expertise in health and development arena, committed to enhancing the local capacity for sustainability and country ownership. The Consortium works with international and local partner organizations for closer collaboration and coordination of activities related health, education, capacity enhancement, IT and innovation. MHDC also aims to promote: linkages with international and local networks and collaboration partners; capacity building; application of innovative approaches in health; private-public partnerships; and resource mobilization efforts for health. Seven local and international Advisory Panel Members provide guidance to MHDC who are critical to the successful initiation and oversight of programs undertaken by MHDC.

⁴⁸ http://www.umfcci.com.mm/index.php?_2MnJjaWc=_1Zm9yZXdhcmQ

Spending on Health, 2013-2014 Fiscal Year⁴⁹

Total: 3.15 percent – 499 Billion Myanmar Kyats	Per Capita: US\$ 11 per Person
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Proposed Spending on Health, 2014-2015 Fiscal Year:
3.38 percent – 650 Billion Myanmar Kyats⁵⁰

Data from the Ministry of Health, Myanmar:

Average Life Expectancy:

Urban		Rural	
Male – 65.8	Female – 70.8	Male – 64.3	Female – 67.8
<i>Maternal mortality ratio/1000 live births (2010):</i>			
Urban – 1.12	Country Avg. – 1.42	Rural – 1.54	
<i>Infant mortality rate/1000 live births (2010):</i>			
Urban – 25.6			Rural – 27.8
<i>Under 5 mortality rate/1000 live births (2010):</i>			
Urban – 34.43	Country Avg. – 34.91	Rural – 35.11	

⁴⁹ Source: <http://www.irrawaddy.org/burma/world-bank-pledges-2b-burmas-health-energy-sectors.html>

⁵⁰ Source: <http://www.irrawaddy.org/burma/world-bank-pledges-2b-burmas-health-energy-sectors.html>

Acronyms List

Annex III

3MDG Fund	Three Millennium Development Goal Fund
ACT	Artemisinin Combination Therapy
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
ASEAN-CCI	ASEAN Chamber of Commerce and Industry
AUSAID	Australian Government Overseas Aid Program
CBW	Community Based Worker
CSR	Corporate Social Responsibility
DFID	Department for International Development
ERAR	WHO Global Emergency Response to Artemisinin Resistance
ESIA	Environmental and Social Impact Assessment
FDA	Food and Drug Administration
GMS-BF	Greater Mekong Sub-region Business Forum
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
ICC	International Chamber of Commerce
IRS	Indoor Residual Spraying
IT	Information Technology
JEQC	Joint Economic Quadrangle Committee
JICA	Japan International Cooperation Agency
LLIN	Long Lasting Insecticide Treated Nets
MARC	Myanmar Artemisinin Resistance Containment
MBCA	Myanmar Business Coalition on AIDS
MHDC	Myanmar Health and Development Consortium
MIC	Myanmar Investment Commission
MMRD	Myanmar Marketing Research and Development Co., Ltd.
MOH	Ministry of Health
NGO	Non-Government Organization
NMCP	National Malaria Control Program
PPP	Private Public Partnership
PSI	Population Services International
RAI	Regional Artemisinin Initiative
RDT	Rapid Diagnostic Test
RBM	Roll Back Malaria
SEZ	Special Economic Zone
SME	Small and Medium Enterprise
UMFCCI	Union of Myanmar Chamber of Commerce and Industry
UN	United Nations
UN MNCH	United Nations Maternal, Newborn and Child Health
UNICEF	United Nations Children's Fund
UNOPS	United Nations Office for Project Services
URC	University Research Corporation
USD	United States Dollars
WHO	World Health Organization

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