CCPHI

Company-Community Partnerships for Health in Indonesia

CASE STUDY

Malaria Control Integrated Program in Papua, Indonesia

The Partnership of PT Freeport Indonesia and Amungme-Kamoro Community Development Institute

Malaria in Indonesia and the Millennium Development Goals
Goal 6: Combat HIV/AIDS, malaria, and other diseases

Malaria in Indonesia has declined since 2000, from 3.62 cases per 1000 population in 2000 to 1.85 cases per 1000 population in 2009 although using a new technique to measure the incidence, i.e., clinical diagnosis, shows a national prevalence rate of 2.89 percent as of 2010.[1] The national rate masks disparity among regions. Incidence of malaria is highest in Papua at 31.4 percent. It is lowest in Bali where the incidence is 0.3 percent. The type of malaria varies. In Java and Bali most cases of malaria are drug-resistant while in the outer islands most malaria cases are commonly susceptible to treatment.

The proportion of children under age 5 sleeping under insecticide-treated bed nets continues to improve, from 7.7 percent in 2007 to 16 percent in 2010. About 32 percent of households own some type of mosquito net, but only 4 percent of households have at least one ever-treated net. More households in rural areas are likely to own insecticide-treated bed nets than households in urban areas.

EXECUTIVE SUMMARY

YCT carries out IRS training for community members, distributes bed nets, trains communities on how to use bed nets, and conduct blood surveys.

This case study discusses a multilayered partnership to eradicate malaria in Papua, Indonesia. The first level of partnership involves PT Freeport Indonesia (PTFI) and *Lembaga Pengembangan Masyarakat Amungme Kamoro* or LPMAK (Amungme-Kamoro Community Development Institute). PTFI created LPMAK, an NGO, in 2002 to manage its Partnership Fund for Community Development in and around the area of operation of PTFI. The second level is between LPMAK and two health NGOs with LPMAK functioning both as a donor and source of technical assistance to the health NGOs. *Yayasan Pembangunan Citra Insan Indonesia* (*YPCII*) and *Yayasan Caritas Timika* (*YCT*) are the health organizations that work with LPMAK to eliminate malaria in Mimika district using a community empowerment approach. Timika is the capital of Mimika District in Papua.

The three-year partnership between PTFI/LPMAK and YPCII began in 2008. The partnership with YCT began in 1999. Activities include community education on malaria prevention, training of village volunteers to ensure sustainability of the education program, indoor residual spraying, bed net distribution, blood test surveys to monitor the spread of malaria, larva control, and treatment for malaria cases.

The program has reached nearly 10,000 people and the number of malaria cases has declined since 2008. The number of communities participating in activities has increased and school surveys indicate that the percentage of students testing positive for malaria declined by 20% between 2009 and 2010 from 12% to 9.55%. The program faces considerable challenges. The most significant is ensuring the sustainability of activities. Partners work with the relatively new local government (created in 1999) to enable it to take over responsibility for health issues. They continue to strengthen local health services managed by the government, including a referral system that connects clinics, hospitals, and other health resources in the area. Partners also continue to work with communities to strengthen education programs that reinforce behavior within communities to prevent the spread of malaria.

PARTNERS

PT FREEPORT INDONESIA
Affiliate of Freeport-McMoRan Copper & Gold

PT Freeport Indonesia (PTFI). www.ptfi.com. PTFI is a subsidiary of Freeport McMoran Copper and Gold (FCX). FCX is based in Phoenix, Arizona, USA. It owns 14 mining sites in North America, South America, Indonesia and the Democratic

Republic of Congo. PTFI is a multinational mining company that produces concentrates containing copper, gold and silver. PTFI was established in 1967 operating in the Mimika District of Papua. PTFI headquarters are in Jakarta.

PTFI considers corporate social responsibility (CSR) activities as important as its mining operation activities. Its programs focus on the environment, economy, and social development in its contract of work (CoW) areas located in Central Papua.

PTFI's CSR programs are based on the 10 Principles for Sustainable Development established by the International Council on Mining & Metals (ICMM). The 10 principles are: business ethics; sustainable development in corporate decision -making, uphold fundamental human rights; implement risk management strategies; maintain continual improvement of health and safety performance; maintain continual improvement of environmental performance; contribute to the conservation of biodiversity; implement the 3R (reduce, re-use, and recycle) principles; contribute to social, economic and institutional development of communities; and implement transparent engagement. Since the early 1990s, PTFI has provided 1% of its gross income every year for community development. The fund is known as the Partnership Fund for Community Development.

Lembaga Pengembangan Masyarakat Amungme Kamoro - LPMAK (Amungme-Kamoro Community Development Institute). www.lpmak.or.id.

LPMAK is a non-profit organization established in 2002 to manage the 1% partnership fund of PTFI.[i] LPMAK consists of 3 main bodies: a Board of Commissioners (*Badan Musyawarah*), Board of Directors (*Badan Pengurus*) and the Executive Secretariat Team that consists of the Executive Secretary, PTFI Technical Expert, treasurer, and three vice secretaries who supervise education, health, culture and religion, and economic development divisions. The Board of Commissioners determines annual budgets and funding for programs. The Board determines priorities and projects that directly benefit two major indigenous groups, the Amungme and Kamoro and five other indigenous groups in the Mimika Regency; the Dani, Moni, Ekari/Mee, Damal, and Nduga. Groups are represented on the Board by community, church, and government leaders, and PTFI.[3]

Prior to the establishment of LPMAK, partnership funds were managed by the Timika Integrated Development Program (*Program Pengembangan Wilayah Timika Terpadu* or *PWT2*). PTFI created LPMAK after an international audit advised the company that its partnerships fund needed better management. Soon after LPMAK was formed in 2002, PTFI provided guidelines concerning the use and disbursement of the Partnership Fund for Community Development that also designated PTFI as the main funder of LPMAK. LPMAK's main program focus on health, education, economy, and culture and churches in Timika. LPMAK manages the program based on PTFI's donor guidelines and the donor's management policy.

During its first years, LPMAK successfully designed and implemented activities based on regulations that were approved by Board of Commissioners and Management Board.

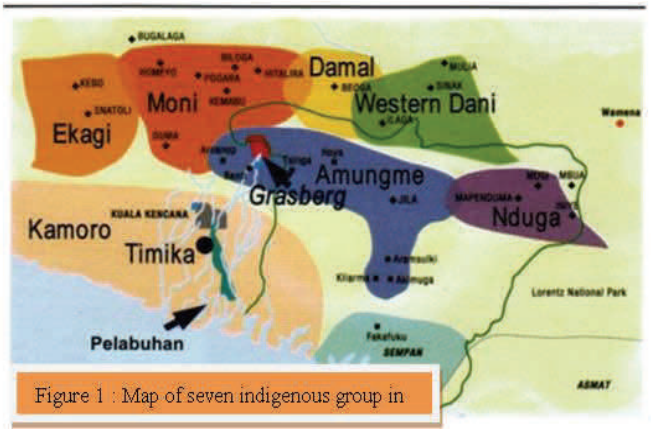

Figure 1 : Map of seven indigenous group in

These included policies and procedures concerning human resources, finance and accounting and a strategic plan and field work as described by Ernst and Young (an international auditor company) in 2003. To ensure that the program follows donor's guidelines and policy appropriately and adheres to international financing standards, LPMAK conducts financial and social audits every year. The report is published on their website.

Additionally, while PTFI is currently the main funder of LPMAK, LPMAK does not exclusively serve PTFI – it is free to work with others. Its comprehensive public health program includes malaria control. It has also built schools, community facilities, and housing and has provided scholarships, training, and business opportunities. Funds benefit seven indigenous groups living in or near PTFI's contract of work area. The two major beneficiaries that are the traditional land rights owners are the Amungme concentrated in the highlands and the Komoro who live mainly in the lowlands (see Figure 1).

To implement its programs, LPMAK requires assistance from other specialist organizations due to wide coverage areas and complexity of the problems. Currently, LPMAK works closely with *Dinas Kesehatan Mimika* (the Mimika district health office), *Yayasan Pembangunan Citra Insan Indonesia* or YPCII, *Yayasan Caritas Timika* or YCT (Caritas Timika Foundation), and the *Komisi Penanggulangan AIDS Daerah Mimika* or KPAD (Mimika AIDS Commission) to implement health programs.

Yayasan Pembangunan Citra Insan Indonesia (YPCII). YPCII, established in 2008, is an independent non-profit organization that aims to improve people's welfare.[4] Its program areas are Aceh, West Java and Papua. YPCII's vision is to empower communities by increasing their capacity to improve their health status, education level, economy and environment. Communities use their own resources to achieve their own objectives. YPCII motivates and facilitates communities to discover their potential and resources to free themselves from poor health conditions, poverty, ignorance and injustice. YPCII key programs include economic development, disaster and risk management, reproductive health, HIV and AIDS prevention, maternal and child health, community-based nutrition and education, and water and sanitation.

One of programs is Healthy Mimika or "*Mimika Sehat*," which is implemented through a three-year partnership with LPMAK (October 2008 – December 2011). The program focuses on

community empowerment in health, clean water, and sanitation. The main components of the programs are maternal and child health (including reproductive health), gender, strengthening community health posts ("*Posyandu*"), community-led total sanitation (CLTS) and clean water activities, school-based hygiene and sanitation activities, literacy, village drug posts, and malaria village volunteers.[ii] Up to now, *Mimika Sehat* has reached 128 village volunteers ("*kader*"), 800 women, 70 government health workers, 286 community leaders, 25 teachers, 600 students, and 44 malnourished children with educational materials.

Yayasan Caritas Timika (YCT). YCT is an NGO established in 1998 by the Catholic Church in Timika. In 1999, YCT started to manage the Mimika Community Partners Hospital or RSMM[iii] with support from the partnership fund and in 2003 YCT expanded services by developing four new satellite clinics, two in Mimika (central Papua), one in Fak-Fak District (far west of Central Papua) and one clinic in Paniai District (north-west of Central Papua) – see figure 2. These clinics were built to make health services closer to the communities they serve.

INITIATING THE PARTNERSHIP

LPMAK realizes that curative approaches along cannot solve the problem of malaria in Timika. Consequently, PTFI and LPMAK had to develop strategic plans to give priority to malaria prevention. In 2007 they developed a plan to cover high-risk areas and vulnerable groups. The plan included a strategy of invention, research and surveys, and monitoring and evaluation. After the plan was completed, PLMAK and PTFI then looked for partners for implementation.

The partnership involving PTFI, LPMAK and YPCII came about as a result of the participation of PTFI and YPCII in a Health & Business Roundtable Indonesia (HBRI) meeting of the CCPHI project. During the Roundtable a PTFI health consultant working with LPMAK made contact with a YPCII

representative who was also attending the meeting. They continued discussions for about half a year before they finally agreed to work together as partners. LPMAK also communicated with other local NGOs working in Papua including YCT that currently manages RSMM[iii] with support from PTFI and LPMAK.

LPMAK and PTFI partner with both organizations based on the following:

- They share common visions about how to address health and both YPCII and YCT are managing health programs in Papua. Both use a community-based approach. YPCII assigns local facilitators and field supervisors in each village for the duration of program. YPCII requires staff members to stay in villages for eight months per year.
- Both emphasize sustainability from the beginning of their programs and involve national and local governments in activities. This strategy is accompanied by establishing joint task forces consisting of community leaders, government officials, and representatives from PTFI and LPMAK.

Figure 2: Map of Papua

IMPLEMENTING THE PARTNERSHIP

PTFI, LPMAK, YPCII, and YCT implement program activities in integrated ways. Each divides roles and responsibilities to ensure that objectives will be achieved. Programs cover low-land areas such as all villages in Akimuga, Far East Mimika, Central Mimika and West Mimika where there are many cases of malaria. Main activities under the program are community education about malaria prevention, Indoor Residual Spraying (IRS), bed net distribution, and blood test surveys that are conducted among students from all villages in the far eastern, central, and western parts of Mimika to monitor the spread of malaria and treatment for malaria cases.

The Public Health and Malaria Control Department (PHMC) of PTFI and LPMAK train the YCT team on how to do indoor residual spraying (IRS), how to analyze blood tests, and how to conduct vector and larva control. The type of spray used is recommended by the World Health Organization (WHO). However, long-term use requires strict procedures and precautions. PTFI and LPMAK have a team of experts to look at the impact of IRS on the environment. To minimize the impact on the most vulnerable groups in the population, pregnant women and children, PTFI and LPMAK always coordinate spraying with local authorities and leaders, evacuate pregnant mothers and children, and advise people to stay 50 meters away from the houses for about one hour. Sprayers also monitor where the wind is blowing to further protect the community. So far they have not found any negative impact from IRS.

YPCII helps communities to develop village drug posts and trains village malaria volunteers. They provide training to villagers to identify symptoms of malaria, medicinal plants, and on how to advise people to visit the nearest community health centers. YPCII and LPMAK always consider local culture in order to avoid miscommunication with the communities.

YCT has distributed thousands of bed nets, giving first priority to families that include pregnant mothers and children under age five. They also train local youth on how to use and distribute the nets to ensure the communities use the nets properly.

With District Health Office (DHO) Mimika personnel, LPMAK works to strengthen six community health centers (Puskesmas)

improve referral systems from Puskesmas to the hospitals (RSMM[iii], RSWB[iv] or the government-owned district hospital, RSUD). LPMAK/PTFI and Mimika DHO also work closely with the Health Research and Development Department of the Ministry of Health and the Menzies School of Health Research (based in Australia,) to conduct research on the resistance of anti-malarial drugs and artemisinin-based combination therapies (ACT) efficacy.

The malaria control program is monitored and evaluated regularly. LPMAK ensures that the monitoring and evaluation also covers distribution and utilization of bed nets. LPMAK is audited by Ernst and Young, an international audit firm, for financial matters. LPMAK always conducts baseline surveys before starting an activity, and then does an evaluation at the final stage of the activity. PTFI and LPMAK work with credible institutions, including YPCII to design feasible strategic plans at early stages of projects. If a project is successful, LPMAK may expand the activities to broader areas in the Mimika district.

CHALLENGES

There are several challenges in implementing the program. They include: limited transportation and access to remote areas; low literacy rates and the number of different languages spoken by the tribes – there are 265 languages spoken within the area of Papua Province; limited ability within communities to understand Bahasa Indonesia; demand from communities for rewards or incentives to participate in activities; limited involvement by local government in activities to improve health; limited awareness by people in the area of the health services that are provided by the government; climate change; and rapid population growth – during the last 30 years the population of Timika has increased from approximately 1,000 to 200,000. The partnership is trying to overcome these challenges through training of individuals in local communities on preventive health in coordination with local governments and more broadly through education of communities on malaria prevention and treatment.

RESULTS

Overall, the number of malaria cases has declined and the number of communities participating in activities has increased. The total number of people reached through this partnership is 10,000.About 3,000 people received malaria education**.** YPCII and YCT have distributed 1,369 bed nets; and conducted IRS for 2,154 households up to August 2010. Surveys in schools indicate that the percentage of students who tested positive for malaria declined by about 20% from 12.14% in 2009 to 9.55% in 2010.

FUTURE PLANS AND EXPECTATIONS

LPMAK hopes that the local government will gradually take over responsibilities for health issues. To strengthen the government's role in health, PTFI and LPMAK initiated the development of the Malaria Elimination Strategic Plan for the Mimika District in July 2010 and hope the government will develop a workplan to implement it. They continue to strengthen the capacity of six government-owned community health centers in Mimika, and built a referral system from the centers to the RSMM[iii]/RSWB[iv] and the government district hospital. The program needs to develop an integrated data and information system that connects health services comprehensively. It is also working toward ensuring that the program will be sustainable to serve the seven groups in the areas.

About this Case Study

This is one in a series of case studies based on presentations by partners at sessions of the Health and Business Roundtable Indonesia (HBRI). HBRI is an activity of Company-Community Partnerships for Health in Indonesia (CCPHI), a project of the Public Health Institute funded by the Ford Foundation.

This case study is based on presentations made by Kerry Yarangga (Head of Public Health and Malaria Control, PTFI) and Hengky Womsiwor (Head of Public Health Program, LPMAK), at the 12th session of the Health and Business Roundtable Indonesia (HBRI). Dian Rosdiana prepared the study in consultation with PTFI and LPMAK.

Footnotes

i. The partnership or "one percent fund" is commonly referred to as the FFIJD. Under this program, PTFI commits 1% of its annual gross revenue. Funds are deposited quarterly, in advance, into a bank account.[2]

ii. Community Led Total Sanitation (CLTS) is a national health program started in 2006 to encourage positive behaviors to ensure proper disposal of human waste, hand washing with soap, ensure safe/clean drinking water and food, manage solid and water waste properly; and ensure communities as the leaders/owners of the program.[5]

iii. RSMM (Rumah Sakit Mitra Masyarakat Mimika) is the Mimika Community Partners Hospital.

iv. RSWB (Rumah Sakit Banti) is the Waa Banti Hospital.

References

1. Ministry of National Development Planning/National Development Planning Agency (BAPPENAS) of Republic of Indonesia, Report on the Achievement of the Millennium Development Goals Indonesia 2010.
2. P. A. Rifai-Hasan. Development, Power, and the Mining Industry in Papua: A Study of Freeport Indonesia. Journal of Business Ethics (2009) 89:129–143 Springer 2010 DOI 10.1007/s10551-010-0371-y. pp 135)
3. Freeport-McMoRan Copper and Gold Inc. Core Values, 2008 Working Toward Sustainable Development Report
4. YPCII organizational profile (brochure)
5. Kementrian Kesehatan Republik Indonesia. Strategi Nasional Sanitasi Total Berbasis Masyarakat. http://www.depkes.go.id/downloads/pedoman_stbm.pdf accessed at 31 January 2011.
6. Annual Report LPMAK 2009.

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