CASE STUDY OF MEDICINES FOR MALARIA VENTURE

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Introduction

This case study will analyze the public-private partnership (PPP), Medicines for Malaria Venture (MMV). A PPP is a relatively new business model and due the novelty of the organizational structure and function, its impact on global health efforts needs to be assessed. In the following analysis, the structure, function, and governance of MMV will be explored along with the institutional interactions with other international health organizations. Through the assessment of MMV, the background of the organization, MDG-related activities, and opportunities for reform and strengthening of the global health efforts will be recommended. For the purpose of this case study, the global health related efforts of MMV will be analyzed, particularly in the context of the Millennium Development Goals (MDGs) with the primary focus on MDG 6: Combat HIV/AIDS, malaria and other diseases.

Background Context and Analysis

History and Founding Body

In the late 1990s, there was no incentive for pharmaceutical companies to conduct drug research and development (R&D) for new antimalarials, drugs used to prevent and treat malaria, due to the high cost of development and low return on investments; therefore, the pipeline for
new drug development was nearly empty (MMV 2010). At this time, malaria was killing upwards of 2 million people annually; most of them children and pregnant women living in the poorest parts of the world (MMV 2010). As this reality worsened, researchers and public health experts recognized this as an obvious public health crisis (MMV 2010).

In 1998, the World Health Organization (WHO) facilitated a roundtable discussion at which the need for a new platform to address the worsening situation in malaria-ridden areas was recognized. The experimental idea for a PPP was discussed throughout 1998 and 1999, and from those discussions, an innovative public-private partnership known as Medicines for Malaria Venture (MMV) was shaped (WHO 1999). There were eight founding partners of MMV: the WHO, Roll Back Malaria, the Government of Switzerland, the Rockefeller Foundation, The Global Forum for Health Research, the World Bank, the United Kingdom Department for International Development, and the International Federation of Pharmaceutical Manufacturers and Associations (MMV 2010). Of the founding partners, the Government of Switzerland, the United Kingdom Department for International Development (DFID), the Government of the Netherlands, the World Bank, and the Rockefeller Foundation provided the seed financing of US$4 million to create the partnership (Independent Evaluation Group 2007). On November 3, 1999, MMV was officially launched by the Director-General of the WHO, Dr. Gro Harlem Brundtland, as an umbrella initiative under the WHO Special Program for Research and Training in Tropical Diseases (WHO 1999).

With the initial seed money, MMV, still housed in WHO’s Special Program for Research and Training in Tropical Diseases, recruited its initial team members (Banerji Poll 2009). During this outreach, MMV hired Dr. Chris Hentschel to be the first Chief Executive Officer (Banerji Poll
2009). One of the first action items accomplished in 2000 was becoming an independent organization. As of 2000, MMV is a newly independent organization and established its headquarters in Geneva, Switzerland with a main office in New Delhi, India (Independent Evaluation Group 2007) (MMV 2010).

Mission, Vision, and Operating Principles

Mission and Vision

The original mission of MMV was “to bring partners from the public, private, and philanthropic sectors together to fund and manage the discovery, development, and delivery of new curative and preventive drugs for malaria” (Independent Evaluation Group 2007) (Fairlamb et al 2005). However, due to the immense and rapid successes of the partnership, in 2006, MMV modified the core of its mission from “discovering, developing, and registering new drugs” to “discovering, developing, and delivering new drugs” (Independent Evaluation Group 2007). The new mission better challenged and supported the successful organization and its vision of “a world in which these innovative medicines will cure and protect the vulnerable and under-served populations at risk of malaria, and help to ultimately eradicate this terrible disease” (MMV 2010). Through the framework set forth by the mission and vision, MMV developed an extraordinary goal: to “establish and manage a portfolio of R&D activities for new malaria drugs, leading to at least one new drug on the market by 2010 and one new drug every five years thereafter, that are affordable to low income consumers and patients in developing countries” (Independent Evaluation Group 2007) (MMV 2010).
Operating Principles

In order to achieve the aforementioned mission, vision, and goals, MMV adheres to the following set of operating principles as stated in the 2008-2012 MMV Business Plan (MMV 2008):

- Partnership. Collaborative working relationships require clarity on roles, responsibilities and goals. MMV’s partners are chosen for their technical capabilities, resources and facilities, and their compatibility with the MMV vision.

- Global access. R&D partners commit to preferential pricing in disease endemic countries, and often to granting royalty-free rights to associated intellectual property for use in malaria research.

- Quality. MMV-funded projects are expected to achieve stringent international regulatory approval and meet WHO pre-qualification standards.

- Transparency. MMV employs a range of vehicles to convey accurate and up-to-date information about its work, plans, performance, and finances.

Function

MMV functions as a “virtual” pharmaceutical R&D company by screening, selecting, financing, and overseeing a portfolio of antimalarial drugs (MMV 2010). As a virtual company with 130 partners in 43 countries, MMV successfully functions without owning any laboratories or research facilities. The PPP serves as a brokering agency to develop partnerships linking academia and industry researchers to ultimately discover, develop, and deliver new antimalarial
drugs to those most in need (MMV 2010) (Independent Evaluation Group 2007). Some academia partners include University of Oxford in the United Kingdom and Goa Medical College and Hospital in Goa, India (MMV 2010). MMV also partners with pharmaceutical and biotechnology companies, such as Sanofi-Aventis, as well as academic and national research institutions (MMV 2010).

In order for MMV to succeed, the issues surrounding intellectual property (IP) rights and knowledge sharing were established early so researchers, pharmaceutical companies, and those in need of antimalarial drugs will not be inhibited from producing or receiving antimalarial drugs due to IP rights. The problems with IP directly affect the success of MMV because the fundamental force driving MMV is to eliminate malaria as a public health concern, and this cannot be accomplished without international collaboration, knowledge sharing, and flexible guiding principles regarding IP (WHO 2009). As a virtual organization, MMV provides funding, advice, and resources to partners with the hope that through effective collaboration and knowledge sharing, a successful line of antimalarial drugs will be discovered, developed, and delivered to those most in need, primarily children and pregnant women (MMV 2010). To address this hurdle, MMV arranges contracts outlining which party will own any IP that is generated through a project or collaborative effort at the outset of the endeavor (FasterCures Philanthropy Advisory Service 2009). While MMV maintains IP rights in the majority of its collaborations, if it is not the designated owner, MMV persists upon obtaining a license allowing them to access the IP in order to fulfill its ultimate health goal of eliminating malaria as a public health concern (FasterCures Philanthropy Advisory Service 2009).
MMV maintains guiding principles for negotiating the rights of IP with their partners. The guiding principles include (FasterCures Philanthropy Advisory Service 2009):

- **Exclusivity:** MMV insists upon receiving an exclusive license to use the “program IP rights” and any “background IP rights” in order to develop an antimalarial drug to be used on the market internationally.

- **Royalty-free:** All licenses are royalty-free, if possible.

- **Transferability:** Because MMV is a virtual company and does not directly conduct R&D within the confines of their offices, as an organization they require the IP to be transferable to other partners who may need it to develop an antimalarial drug.

Knowledge sharing is also vital to the success of MMV, and while there is no formal policy, it is standard practice for MMV and their partners to openly share knowledge with the health community through a multitude of sources such as presentations, meetings, publications, conferences, and information made publicly available on the internet (FasterCures Philanthropy Advisory Service 2009).

**Governance Structure and Members**

Medicines for Malaria Venture is governed primarily through six different departments which represent MMV’s main activities (MMV 2010). The six governing bodies include the Executive Management Group; the Board of Directors; the North American Inc. Board; the Expert Scientific Advisory Committee (ESAC); the Access and Delivery Advisory Committee (ADAC); and the Global Safety Board (GSB). The Executive Management Group is comprised
of each of the six department heads and ensures collaboration within MMV to achieve the mission and vision of the organization (MMV 2010).

Board of Directors

MMV is governed by a Board of Directors. At any given time, a maximum of 14 members sit on the board and are chosen based on specific expertise in the science, medical and public health aspects of malaria and malaria-related fields (MMV 2010). The board members are also chosen for their competency in management and research, business, finance, and fundraising. According to the statutes of MMV, board members serve for three years and are prohibited from serving more than two, three-year terms (MMV 2010) (Independent Evaluation Group 2010). The MMV Board of Directors is the decision-making and highest policy-making body of the organization. The board’s primary responsibility is to ensure that the mission, vision, and goals of MMV are effectively implemented (MMV 2010). The Board meets four times per year to develop the annual budget, work plans, policies, and principles of MMV. The President and Chief Executive Officer are appointed as needed by the board.

MMV North America Inc. Board

The MMV North America Inc. was created to directly support the activities related to corporate development activities occurring in the US. It is a nonprofit corporation which has five board members overseeing MMV’s activities in the US (MMV 2010).

Expert Scientific Advisory Committee
The Expert Scientific Advisory Committee (ESAC) is the scientific advisory board of MMV (MMV 2010). ESAC works to identify the projects that fit best with the mission of MMV and will advance the research portfolio. ESAC is comprised of experts from the fields of both industry and academia. Currently, there are 26 members sitting on ESAC, including four from Africa and two from Asia. The remaining ESAC members are partners from North America, Australia, or Europe (MMV 2010).

ESAC monitors and evaluates the portfolio of the projects specializing in drug discovery, including all phases of antimalarial drug research and development (MMV 2010). Through their annual monitoring and evaluation activities, the ESAC provides recommendations regarding which projects should be included or discontinued in the portfolio.

Access and Delivery Advisory Committee

The Access and Delivery Advisory Committee (ADAC) is the advisory board to MMV regarding global access activities to “ensure timely and effective delivery of new antimalarial drugs in malaria-endemic countries” (MMV 2010). ADAC was created after the mandate of MMV was adopted from “Discover, Develop, Register” to “Discover, Develop, Deliver” to more appropriately address the work of MMV (MMV 2010) (Independent Evaluation Group 2007). ADAC is comprised of a range of 10 to 20 members who are nominated by the President and CEO (MMV 2010). The committee’s main function is to develop strategies that supplement access and delivery goals. Currently, the board consists of 12 members with six members from malaria-endemic countries.
Global Safety Board

The Global Safety Board (GSB) was established in 2009 to conduct reviews on the projects within the portfolio that are progressing along the drug development line (MMV 2010). The mandate of the GSB is to ensure that all research is conducted ethically. In order to ensure ethical conduct throughout a project, the GSB manages a thorough review of the project at each of the major milestones. This process begins as early as clinical Phase I and continues into drug registration and distribution. Currently, six members serve on the GSB (MMV 2010).

From the governance structure described, MMV as a PPP encourages expansion, knowledge sharing, and risk-taking to achieve scientific progress for antimalarial drug development and delivery. Through this innovative process, WHO plays a vital function as an important partner and advisor (MMV 2010) (Independent Evaluation Group 2007) (Fairlamb 2005) (FasterCures Philanthropy Advisory Service 2009). As discussed, MMV was brought to creation through the roundtable discussion hosted by the WHO and was initially housed within the Special Program for Research and Training in Tropical Diseases in WHO (WHO 1999). MMV leaders made it clear in 2000 that they were an independent organization, but to achieve optimum success, WHO would remain a close partner and MMV would continually seek support and guidance from WHO’s malaria technical expertise and leadership (WHO 1999) (MMV 2010) (Banerji Poll 2009).

Resources and Finance Mechanisms

Funding Sources
MMV is managed as an innovative business model, and an initial business plan was completed in 2000 with the assistance from the Boston Consulting Group and based on the Bill and Melinda Gates Foundation award of US$25 million over 5 years (Banerji Poll 2009) (Independent Evaluation Group 2007). MMV has mobilized over $480 million in pledges since its inception in 1999 through 2015 (FasterCures Philanthropy Advisory Service 2009) (MMV 2009). Of the amount received or pledged since MMV’s foundation through 2015, nearly 66% of the financial resources is attributable to the Bill and Melinda Gates Foundation, with the UK DFID providing 12.3%, Wellcome Trust donating 4.3%, the Netherlands Ministry of Foreign Affairs contributing 3.7%, US Agency for International Development contributing 3.3%, and Irish Aid donating 2.2% (MMV 2010) (MMV 2009) (Bathurst& Hentschel 2006). MMV currently has 12 different donors (MMV 2010). As demonstrated in Table 1, below, the variety of funding sources from the projected donors outlined in the initial business plan compared to 2005 is starkly different (Independent Evaluation Group 2010). The divergence from the original business plan is largely attributable to the considerable donations from the Bill and Melinda Gates Foundation.

<table>
<thead>
<tr>
<th></th>
<th>UN Agencies and other Int’l Organizations</th>
<th>Government Agencies</th>
<th>Foundations</th>
<th>Corporations and Corporate Foundations</th>
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<tr>
<td>Initial Business Plan</td>
<td>15%</td>
<td>40%</td>
<td>30%</td>
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<td>Actual, 2000–2005</td>
<td>3%</td>
<td>20%</td>
<td>77%</td>
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Table 1:

While a similar analysis between the initial business plan funding and actual funding sources is not available to better demonstrate current funding sources, through the analysis of MMV and
independent evaluations, the results shown in Table 1 have remained relatively consistent since 2005.

**Resources**

Through MMV’s over 130 partners, an intricate partnership and understanding is created for the full advancement of MMV’s mission. A fundamental aspect of the partnerships is cost-sharing—which can vary widely by project (FasterCures Philanthropy Advisory Service 2009). While MMV does leverage a substantial amount of financial resources, it is estimated that a significant percentage, often half or more, of the total cost of drug development is provided by MMV’s partners through in-kind contributions (FasterCures Philanthropy Advisory Service 2009). In-kind contributions can include technical expertise, access to technology or equipment, human resources, and access to buildings and fully equipped laboratories (FasterCures Philanthropy Advisory Service 2009).

**Spending**

Currently, $480 million is pledged to MMV through 2015 (MMV 2010). In 2009 alone, MMV spent $55.4 million (MMV 2009). The expenditures in 2009 consisted of 80% dedicated toward project-related R&D; 9.1% toward management & administration; 7.4% dedicated toward access and delivery activities; 2.7% for corporate development & advocacy initiatives; and 0.8% spent on governance & stakeholders (MMV 2009). According to an analysis comparing MMV’s available income and annual expenditures for R&D projects, administration, access, and delivery activities, the annual available income has consistently exceeded the annual received or pledged (MMV 2010) (MMV 2009) (Independent Evaluation Group 2007).
Funding Gaps

Although MMV has been successful in leveraging a substantial amount of financial resources, a funding gap does exist and it will need to be addressed in order to effectively achieve the mission, vision, and operating principles of the PPP (FasterCures Philanthropy Advisory Service 2009). According to recent estimates, MMV is in need of leveraging US$450 million in order to effectively finance all of the activities outlined in the 2009-2013 Business Plan (MMV 2008). Recent efforts have raised nearly US$250 million as of December 2009, however, a US$200 million funding gap remains (FasterCures Philanthropy Advisory Service 2009). To maintain the pace needed for R&D activities and to achieve the goals previously set by MMV, considerable advancements must be made in the area of resource mobilization and fundraising.

Global Health Activities

Medicines for Malaria Venture conducts numerous initiatives worldwide to fight malaria and to give hope to those constantly living with the threat of malaria. To do this, MMV conducts various functions including: normative, coordinating and operational, program implementation assistance, advocacy, monitoring, financing, and technical assistance functions. Each of the functions of MMV has been included throughout the description of the organization’s background context and analysis; examples of the various functions will now be described. First, it is important to understand the R&D activities and the overall portfolio of MMV.
Portfolio Overview

One of the necessary functions to achieve MMV’s goal of “discovering, developing, and delivering” innovative antimalarial drugs worldwide is a strong and diverse research portfolio. MMV has quickly become a world leader in malaria research through the R&D strategic objectives which include: curing malaria, addressing resistance, and blocking transmission (MMV 2010). As discussed previously, the ESAC is an integral component to the R&D process and rigorously manages and evaluates each of the projects. Table 2, below, demonstrates the diverse portfolio of MMV and the variability of the drug development spectrum MMV manages.

Table 2:

Source: FasterCures Philanthropy Advisory Service 2009, Medicines for Malaria Venture Organizational Report, FasterCures The Center for Accelerating Medical Solutions, Washington, D.C.

Some of the successes within MMV’s portfolio include the development of the Pyramax® dossier, which was recently submitted to the European Medicines Agency (EMA) for regulatory
approval in March 2010 (MMV 2010). Pyramax is a new Artemisinin-based Combination Therapy (ACT) that treats two forms of malaria: *Plasmodium falciparum* and blood state *Plasmodium vivax* malaria. Coartem® Dispersible is an antimalarial high quality ACT developed specifically for children (MMV 2010). To date, over 42 million treatments have been given to children to help combat malaria. Furthermore, due to MMV’s partnerships, over five million compounds of potential malaria vaccines and treatments have been screened (MMV 2010).

In addition to conducting a comprehensive R&D portfolio, MMV has managed an access portfolio since 2006 when the mission of the organization changed to include drug delivery. The Access and Delivery portfolio focuses on assuring acceptance, expanding reach through public and private partners, and measuring the impact of the new drugs to help assist and propel the R&D agenda (MMV 2010). Currently, there are ten activities within the Access and Delivery portfolio.

**Normative Functions**

While MMV does not primarily conduct normative functions, it can be argued that through the R&D and the Access and Delivery portfolios, the research conducted from MMV partnerships establishes norms to be used in the field. MMV regularly interacts with WHO, which is seen as a normative entity, so through a collaborative understanding and partnership, MMV is influential in setting international norms pertaining to malaria research and development (MMV 2010) (Independent Evaluation Group 2007). While international norms continually evolve as new research comes out, the most recent normative publication, *Guidelines for the Treatment of Malaria (second edition)*, was released by WHO in March 2010 and
includes updated treatment recommendations from the initial set of guidelines published in 2006 (WHO 2010)

**Coordinating and Operational Functions**

A key function of MMV is their coordinating and operational activities. As described previously, MMV is a virtual organization and relies on effective collaboration and coordinating functions. A key example of the coordinating functions within MMV is drug delivery to communities. MMV partnered with Population Services International to successfully coordinate improved access and delivery of ACTs to vulnerable communities in Mali and Malawi (MMV 2010a) (WHO 2010b).

Other coordinating functions involve the pharmaceutical partners. Partners such as GlaxoSmithKline and Novartis must closely communicate with MMV to develop novel technologies and address the needs to the global market for antimalarials (MMV 2010).

**Program Implementation Assistance Functions**

MMV does not regularly participate in program implementation assistance. However, with the expansion of the mission to include “delivery of drugs” in 2006, MMV has become more active. The Uganda Pilot Project is the first example of working on aspects of program implementation assistance (MMV 2010). The Uganda Pilot Project studies the global policy and institutional problems that has the potential to interfere with successful access and delivery of new malaria drugs developed. Uganda and MMV partnered to analyze various factors that would hinder successful program implementation and assistance functions, such as access to health
clinics, appropriate interventions, and the evaluation of the health impact of these efforts (MMV 2010).

**Advocacy Functions**

Also incorporated into the Access Portfolio, MMV is rapidly expanding their advocacy functions. The organization is collaborating with partners to raise awareness across sub-Saharan Africa about the need to provide rapid, effective treatment to those in need. Broad advocacy initiatives are carried out by MMV to raise awareness about the dire need for improved antimalarial drugs, particularly in sub-Saharan Africa, and the need for improved access to cheap and effective malaria treatments (MMV 2010).

**Monitoring Functions**

Monitoring functions occur throughout all aspects of MMV. Regular monitoring of the projects is conducted by the ESAC and by the GSB (MMV 2010). The ESAC monitors all projects to ensure the funds from MMV are spent efficiently and that the project is on target to achieve the agreed upon targets and milestones (MMV 2010). The GSB monitors the projects that use human subjects in their research to ensure that they are conducting the trials in an ethical manner. Annually, the ESAC makes recommendations for the projects’ continuation or termination, and to date, 20 projects have been terminated through this monitoring process (MMV 2010).
Finance Functions

MMV provides financial resources to foster malaria drug discovery and development. The financing mechanisms are different with each partner and are established through a set of negotiations and Memorandums of Understanding (MMV 2010) (Independent Evaluation Group 2007). MMV primarily distributes its funding to project research and development, and in 2009, distributed 80% of the funds toward project-related R&D (MMV 2009).

Technical Assistance Functions

MMV offers technical assistance in the form of monitoring and evaluation of the projects, partnerships, and collaborations that are developed to further MMV’s mission. The organization does not provide technical assistance to countries for malaria programs nor to projects that they support because that is outside the scope of MMV (MMV 2010). However, MMV does provide thorough monitoring and evaluation of their projects as described through the governance structure and monitoring functions of MMV.

While MMV has experienced great successes over the years, it recognizes some of the current and future challenges of the PPP such as: meeting children’s needs; bridging the data gap; developing innovative treatment options for pregnant women with malaria; developing patient-friendly packaging; and combating drug resistance (MMV 2010). MMV acknowledges these challenges and can overcome them through continual development and flexibility. However, the counterfactual of MMV’s presence must be elaborated. It is clear that drug research and development for malaria would be minimal and the worldwide malaria burden would have little chance of lessening without the organization’s work. MMV is providing a global public good,
antimalarial drugs and treatment remedies to the most vulnerable populations: pregnant women and children living in the poorest regions of the world. Without MMV’s presence, the morbidity and mortality due to malaria would be staggering.

**Recommendations**

The following recommendations are based on the analysis of the public-private partnership, Medicines for Malaria Venture, discussed throughout this case study. Three recommendations for strengthening MMV include:

1. **Political: Broaden regional work and partnerships**

   Currently, MMV has 72 partners in six countries for the North America, Latin America and the Caribbean (LAC), and South American regions combined. However, only three countries, Peru, Costa Rica, and Panama, from LAC and South America are partners with MMV. It would be beneficial for MMV to expand from the four partners in this region and establish new partners who are also combating infectious and vector borne diseases to contribute to the worldwide effort (MMV 2010).

   In the most recent evaluations from the Independent Evaluation Group of the World Bank and the FasterCures Philanthropy Advisory Service, no mention or recommendation was made for MMV to develop political partners in South America; however, it would be a lost opportunity to not reach out to more of the countries in a region largely untouched by MMV.
The current global reach of MMV does not extend into South America; however, another public-private partnership, Drugs for Neglected Diseases initiative (DNDi), has an extensive partnership with a Brazilian foundation, the Oswaldo Cruz Foundation (DNDi 2010). Through this partnership along with six other organizations, DNDi successfully released two antimalarial drugs in 2007 and 2008 (DNDi 2010). While the burden of malaria is not as great in South America as it is in sub-Saharan Africa, engaging political partners and international organizations in South America can prove beneficial for important drug discovery and delivery (MMV 2010). The Oswaldo Cruz Foundation works in a wide range of infectious disease research including: infectious agent vector biology, health surveillance, drug and medication development, information and communication, and experimental models of disease (Oswaldo Cruz Foundation 2010). Therefore, MMV can expand its global reach with the cultivation of new partners, such as the Oswaldo Cruz Foundation, in South America.

2. Organizational: Expand ESAC’s regional representation

Currently, the Expert Scientific Advisory Committee of MMV holds a commanding position within the organization and continually monitors and makes recommendations on all of the drug research and development projects. As mentioned earlier, only six of ESAC’s 26 members are from developing countries (MMV 2010). Acknowledging that the ESAC is not intended to garner support or to represent stakeholders, it would still be in MMV’s best interest to have a greater proportion of the ESAC from Africa, South America, and Asia. Expanding regional representation in ESAC will develop a more comprehensive view by engaging the scientists from all regions, particularly scientists from malaria-endemic countries.
It was recommended in 2007 by the Independent Evaluation Group of the World Bank in 2007 to “strengthen ESAC’s technical competence in the design and execution of clinical trials, and introduce honoraria for ESAC members in recognition of their contributions” (Independent Evaluation Group 2007). This recommendation was not fully adopted by MMV. While MMV did expand the number of members on ESAC and provide an honoraria position for the ESAC chair, regional representation has never been addressed as it should to “strengthen ESAC’s technical competence in the design and execution of clinical trials” (Independent Evaluation Group 2007).

Roll Back Malaria currently has 500 partners to assist in achieving their mandate of “implement[ing] a coordinated action against malaria” (Roll Back Malaria 2010). The 500 donors are diverse and have worldwide regional representation (Roll Back Malaria 2010). Understanding that MMV and Roll Back Malaria are partners themselves and each organization is operating under a different mandate, it is important to learn from Roll Back Malaria and extend the global reach of scientific expertise and collaboration into all regions of the world.

3. Financial: Cultivate funding from various donors

As stated previously, MMV is facing a $200 million funding gap going into 2011 for R&D activities (FasterCures Philanthropy Advisory Service 2009). The Bill and Melinda Gates Foundation has consistently donated the majority of the funds for MMV, with 66% of the cumulative funds from the Gates Foundation (MMV 2010). With the current economic hardship worldwide and the knowledge that the Gates Foundation is not going to exist forever, MMV must expand its donor base and cultivate funding from other donors to ensure long-term sustainability.
As shown in Table 1, in the original Business Plan for MMV, it was estimated that 15% of the funds would be donated from UN agencies and other international organizations, 40% from government agencies, 30% from foundations, and 15% from corporations and corporate foundations (MMV 2010) (Fairlamb et al 2005). In reality, the percentages are nearly opposite of the amount detailed in the initial business plan, with the most striking difference in the percentage donated by foundations (Fairlamb et al 2005). The initial business plan projected foundations would donate 30% of the budget, however, MMV receives approximately 77% of its funding from foundations (Fairlamb et al 2005). This is not sustainable because most foundations, particularly the Bill and Melinda Gates Foundation, have its money set in investments. Therefore, the actual monetary amount ebbs and flows with the current economic situation, a reality that MMV should not rely on.

The evaluation conducted in 2007 recommended that “donors should sustain and increase their financial commitment over the next five years to ensure MMV success, and be mindful of the risks of failure in contemplating their future funding strategy” (Independent Evaluation Group 2007). While this recommendation does not directly suggest cultivating a wider range of donors, expanding and sustaining a broad range of donors is consistent with this notion.

For the independent evaluation of the Global Fund to Fight Aids, Tuberculosis, and Malaria (GFATM), the first recommendation was to “further its mobilization of financial resources from existing donors and new sources of funding, including from international donor agencies that have not yet contributed and from non-traditional sources” (Technical Evaluation Group 2009). The GFATM is a well-respected international organization also involved in combating malaria, and the concept of expanding present donor contributions and cultivating new ones is relevant to
MMV, which should emulate GFATM and seek to expand financial contributions from governments and private entities.

**Conclusion**

Overall, MMV has generated an impressive momentum and portfolio toward addressing the global burden of malaria. Established in 2000, MMV has expanded its portfolio dramatically and changed its mission to expand the organization’s global reach to include delivery of antimalarial drugs once through the R&D pipeline. MMV’s success is generated through continual and improved monitoring and evaluation efforts, sustained funding, and a creative focus for future efforts. Although MMV has experienced a great amount of success in generating antimalarial drugs, innovative efforts and continual improvements need to be incorporated into MMV’s operations to ensure stability through difficult economic circumstances and the challenges of drug research, development, and delivery. With persistent evaluation and development, MMV can expand its global reach with the ultimate goal of achieving its vision of “a world in which these innovative medicines will cure and protect the vulnerable and under-served populations at risk of malaria, and help to ultimately eradicate this terrible disease” (MMV 2010). MMV can generate recurrent success through the aforementioned recommendations: broadening of regional work and partnerships, expansion of ESAC’s regional representation, and cultivation of funding from various donors. Through this modern PPP and recurrent monitoring and evaluation efforts, MMV will continue to be an excellent model for other organizations and will be instrumental in the global efforts to eliminate malaria.
References


FasterCures Philanthropy Advisory Service 2009, Medicines for Malaria Venture Organizational Report, FasterCures The Center for Accelerating Medical Solutions, Washington, D.C.


