From the Core to the Peripheries: Multilateral Governance of Malaria in a Multi-Cultural World

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I. INTRODUCTION: THE NEW MULTILATERAL INITIATIVE ON MALARIA

The election of Gro Harlem Brundtland, former Prime Minister of Norway and former Chair of the World Commission on Environment and Development ("Brundtland Commission"), as the Director General of the World Health Organization ("WHO") in 1998 was widely regarded by the public health community as the dawn of a new era. The "Brundtland Era," most experts and commentators predicted, would radically reform the WHO, allowing it to reclaim its lost mandate as the directing and coordinating authority on international health work. This important mandate, in the decade preceding 1998, had been significantly eroded as a result of years of inefficiency and excessive bureaucracy. The commentators also predicted that the Brundtland Era would reposition the WHO within the normative framework of global health governance. In the matrix of this multilateral framework, the WHO was to emerge as the champion and initiator (not a grudging follower) of multilateral efforts aimed at the increased use of normative and legal interventions in global health work, an initiative the WHO had appallingly discarded in the decades following its creation in 1948.

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True to expert predictions, the Brundtland Era has boldly revisited the treaty-making powers of the WHO under Article 19 of its constitution. It has also launched an initiative on the multilateral governance of malaria, a long neglected disease that takes its toll on billions of lives in the global South. Steered by Brundtland’s leadership at the WHO, malaria is now the subject of an innovative public-private global partnership led by the WHO, called the Roll-Back Malaria Campaign ("RBM").

This article discusses multilateral malaria control strategy, the RBM, its mission, vision, and relationship with traditional therapies in malaria-endemic societies, especially in Africa, where malaria is one of the biggest contributors to the burdens of disease. Because big multilateral partnerships like the RBM are almost always guilty of the charges of non-transparency, non-responsiveness, and insensitivity to the local constituencies they serve, I use Richard Falk’s twin concepts of “globalism-from-above” and “globalism-from-below” to explore the interaction between the RBM and traditional therapies in malaria-endemic societies. In search of a transparent cosmopolitan malaria regime, I propose a transnational dialogue between all the relevant actors and stakeholders: multilateral health institutions, pharmaceutical corporations, indigenous populations, traditional healers, and civil society. We need to synthesize the tension between the core (policies of multilateral institutions) and the peripheries (traditional therapies in malaria-endemic societies). This synthesis must proceed in a way that projects multilateralization of malaria as a humane enterprise rather than a predator that erodes age-long therapies of rural populations in malaria-endemic societies of the global South.

II. RBM: HISTORY, MISSION, AND VISION

The WHO launched a global campaign to eradicate malaria in 1955. In 1969, when it abandoned the eradication strategy, malaria had been completely eliminated from the industrialized countries where it hitherto had been endemic. Parts of Asia and Latin America witnessed significant reductions in malaria morbidity. In Africa, the WHO’s eradication campaign was focused only on Ethiopia, South Africa, and Zimbabwe because “eradication was considered not yet feasible in the other countries.” Globally, Africa continues to bear the heaviest burden of malaria mortality and morbidity.

Malaria is most serious in the poorest countries and among populations living under impoverished conditions. It undermines the health and welfare of families,

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endangers the survival of children, debilitates the active populations, and impoverishes individuals and countries. As such, malaria is a health problem that is inextricably linked to the social and economic development of African societies. According to the WHO, "[m]alaria and underdevelopment are closely intertwined.... The disease causes widespread premature death and suffering, imposes financial hardship on poor households, and holds back economic growth and improvements in living standards."  

In the early 1990s, the WHO changed its malaria policy from eradication to control. The first Global Malaria Control Strategy was endorsed at a Ministerial Conference on Malaria Control convened by the WHO in Amsterdam in 1992. The United Nations General Assembly endorsed it in 1994, and the United Nations Economic and Social Council ("ECOSOC") adopted its action plan in 1995. The four basic elements of the global malaria control strategy are:

1) provision of early diagnosis and prompt treatment;
2) planning and implementation of selective and sustainable preventive measures including vector control;
3) early detection, containment and prevention of outbreaks; and
4) strengthening of local capacities in basic and applied research to promote the regular assessment of each country's malaria situation, particularly the ecological, social, and economic determinants of the disease.

The WHO's global malaria control strategy since 1992 was presumably subsumed by its present RBM Campaign. RBM consolidates the experience of the past twenty years and is committed to cutting the burden of malaria in endemic areas in half by 2010. RBM is a partnership of agencies: the WHO, the World Bank, the United Nations Children's Fund ("UNICEF"), and the United Nations Development Programme ("UNDP"). Major development agencies from the US, EU, Canada, Sweden, the Netherlands, France, Germany, Belgium, and Italy, as well as foundations and research institutes, maintain close links with RBM.

RBM has six basic elements:
1) evidence-based decisions using surveillance, appropriate responses, and building of community awareness;
2) rapid diagnosis and treatment;


3) multiple prevention: better multi-pronged protection using insecticide-treated mosquito nets, environmental management to control mosquitoes, and methods to make pregnancy safer;

4) focused research to develop new medicines, vaccines, and insecticides and to help epidemiological and operational activities;

5) coordinated action for strengthening existing health services and policies and providing technical support; and

6) harmonized actions to build a dynamic global movement.6

One oft-cited reason for the resurgence of malaria in Africa and other malaria-endemic regions is drug resistance. The WHO argues that “[t]he potentially lethal malaria parasite, P. falciparum, has shown itself capable of developing resistance to nearly all available anti-malarial drugs. Chloroquine, perhaps the best ever antimalarial drug, and certainly the most widely used, is now failing against falciparum malaria in most areas of the tropical world.” As a result, investment in the production of effective and affordable malaria drugs is an integral part of RBM.

Prior to RBM, the Multilateral Initiative on Malaria (“MIM”) in Africa was launched in January 1997 as a coalition of the public and private sectors to promote malaria research in Africa. As part of MIM, the UNDP, the World Bank, and the WHO’s Special Programme for Research and Training in Tropical Diseases (“TDR”) are coordinating the Task Force on Malaria Research Capability and Strengthening in Africa, which focuses on the needs of malaria-endemic countries. With a budget of about $3 billion annually, the main research areas to be funded are anti-malarial drug policy and chemotherapy, epidemiology, pathogenesis, vectors, health systems, and social science. The WHO continues to be involved in the MIM Task Force, primarily through TDR.

In November 1999, another public-private partnership for the discovery of new anti-malarial drugs, Medicines for Malaria Venture (“MMV”) was launched as a new but autonomous partner to RBM. Initial co-sponsors of the MMV were the WHO, the International Federation of Pharmaceutical Manufacturers Associations, the World Bank, the UK Department for International Development, the Swiss Agency for Development and Co-operation, the Global Forum for Health Research, the Rockefeller Foundation, the RBM Partnership, and the Netherlands Ministry of Development Co-operation. The goal of MMV is to secure the registration of one new anti-malarial drug every five years. This required raising $15 million annually by 2001, with $30 million to be raised annually thereafter.

6. For an overview of the RBM project, see WHO, Roll Back Malaria, available online at <http://www.rbm.who.int> (visited Mar 24, 2002).

According to WHO Director-General Brundtland, MMV has been created because the increased costs of developing and registering pharmaceutical products, coupled with the prospects of inadequate commercial returns, have resulted in the withdrawal of the majority of research-based pharmaceutical companies from R&D investment in tropical diseases and especially from discovery research activities.\(^8\)

MMV offers a new approach. It is a partnership that brings together the pharmaceutical industry, with its knowledge and expertise in drug discovery and development, and the public sector, with its expertise in basic biology and field studies. MMV is a response of the private and public sectors to the growing crisis of malaria and the high priority given to rolling back malaria by the WHO and other partners. Through MMV, the private and public sectors are able to bring together the best of one another's strengths, and contribute to the RBM goal of halving the global malaria burden by the year 2010 and sustaining this effort in the future. MMV is an entrepreneurial non-profit venture legally incorporated as a foundation under Swiss law. It will negotiate drug-licensing agreements in a way that recognizes the intellectual property rights of its partners in the pharmaceutical sector. The major goal of these agreements will be to produce medicines and medical products for low-income populations at affordable prices. A royalty income may accrue to MMV on products that earn significant returns for MMV's commercial partners. These returns will feed back into MMV's fund to offset the need for future donations.\(^9\)

RBM and MMV are important and innovative milestones in multilateral public health. They represent a collaborative public-private partnership to tackle a disease that attacks the poor, with arguably the heaviest health and economic burden endemic within Africa.\(^10\) Nevertheless, both RBM and MMV, as global policies, must be analyzed against the perceptions of local populations in Africa, where the disease is most prevalent. If global policy is antithetical to the behavioral practices of populations in malaria-endemic societies, then an effective synthesis must be developed to close the regime deficit. With an aim to synthesize any apparent or foreseeable conflicts, I analyze ethnopharmacological approaches to disease from an African perspective.

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9. For general information about MMV and how it operates, see Medicines for Malaria Venture, available online at <http://www.mmv.org> (visited Mar 24, 2002).

10. See Gavin Yamey, Global Campaign to Eradicate Malaria, 322 Brit Med J 1191 (May 19, 2001) (stating that the RBM Campaign has had two major successes: building an impressive partnership of public, private, and non-profit agencies, and raising the visibility of a neglected disease).
Ethnomedical or ethnopharmacological approaches to disease remain controversial despite the volumes of seminal works and series of international conferences such approaches have generated in past decades. One source of this controversy is science. Aspects of Western scientific discourse dismiss African traditional medicine (including ethnomedical malaria therapies) as an unscientific belief, magic, superstition, ritual, barbarism, witchcraft, or sorcery.

Frants Staugard observed that throughout history, an ambitious search for physical, social, and mental well-being has preoccupied the minds of humankind in all cultures. As a result, two systematic responses to ill-health and disease have emerged. One is the modern system of medicine founded by Hippocrates and his pupils on the Greek Island of Kos, and the other is traditional medicine, which is as old as human culture. From ancient times, the two systems have coexisted, albeit with hostility. Staugard states that modern medicine has often demonstrated its hostility towards traditional health care by categorizing it either as “quackery” or “witchcraft.” This categorization arises from the mistaken Western view of the herbalist, diviner, magician, and faith healer as belonging to one single and indivisible health delivery compartment devoid of methodological or analytical scientific investigation.

Isaac Sindiga observed that most studies concerned with African traditional medicine have linked it with beliefs, religion, and rituals. Such studies, pioneered by the structural functional school of British anthropology, uncritically concluded that African disease aetiologies were basically moral, social, and devoid of any scientific insights and assessment. In a recent work, De Smet wrote that “[m]any Western

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11. Ethnomedicine is defined as “the study of how members of cultures think about disease and organize themselves toward medical treatment and social organization of treatment itself.” Horacio Fabrega, Jr., The Need for an Ethnomedical Science, 189 Science 969, 969 (Sept 19, 1975). Reacting to the question, “What is ethnopharmacology?”, Peter A.G.M. De Smet states that, [f]rom time immemorial, man has valued the plant kingdom and animal kingdom as sources of bioactive products. . . . Some of these traditional plant and animal substances are purely magical. They have no relevant pharmacological (i.e. drug-like) effects, which can be produced in a laboratory setting. Many substances have a measurable pharmacological action, however, which corresponds well to their traditional application. The scientific discipline which explores this pharmacological basis of traditional drugs and poisons is called ethnopharmacology. Its focus ranges from the first-hand observation of native drug practices (by early travellers and anthropologists) through the identification of crude ingredients and their constituents (by botanists, zoologists and chemists) to the evaluation of wanted and unwanted drug effects (by pharmacologists and toxicologists).


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In our day and age, there are two inextricably linked reasons why ethnomedicine is relevant to global malaria policy. The first is "global multiculturalism," including its implications for the health therapy of populations across cultures. The second relates to the cost and affordability of health care in Africa, where ethnomedical therapies for malaria may be readily available at a cost the community can afford while orthodox (Western) malaria medicines may not be. In a multicultural world, every society deals with illness and disease in a variety of ways. Ethnomedicine has no unifying theme across societies, thus the therapies it provides vary from one society or culture to another. Ethnomedical knowledge of plants by indigenous people across societies and cultures has "long served as crucial sources of medicines either directly as therapeutic agents, as starting points for the elaboration of more complex semi-synthetic compounds or as synthetic compounds." In most African societies, multiculturalism has given rise to what some scholars call "medical pluralism"—the existence in a single society of differently designed and conceived medical systems. Such systems exist together, and may either compete with, or complement, one another. Populations in the developing world resort to both traditional medicine and Western medicine simultaneously for the same illness or at different times for different illnesses.

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15. See World Health Assembly Resolution WHA29.72 (1976) (noting the huge manpower reserve constituted by traditional medical practitioners); World Health Assembly Resolution WHA30.49 (1977) (calling on Member States to explore the utilization of traditional medicine in their health care systems); World Health Assembly Resolution WHA31.33 (1978) (noting the medicinal value of medicinal plants in the health systems of many developing countries).
18. See O. Ampofo and J.D. Johnson-Romauld, Traditional Medicine and its Role in the Development of Health Services in Africa, in WHO, Technical Discussions of the 25th, 26th and 27th Sessions of the WHO Regional Office for Africa, Brazzaville, Congo 51 (WHO 1987) ("African peoples believe in traditional medicine and it is not uncommon to see patients in hospitals permitting themselves to be treated by modern medicine during the day and having recourse to the recipes of traditional medicine at night").
Juxtaposing ethnomedicine with Western medicine, the holistic approach of traditional medicine to the art of healing is one important factor that has continued to endear it to many of its followers and adherents—a sizeable 80 percent of the population in most African rural areas. As persuasively argued by one scholar of ethnomedical approaches in Africa,

[t]he "holistic" concept in traditional healing is commendable, in that the patient's mind and soul as well as body are considered together during treatment: ... One increasingly important aspect of the African worldview is the belief that human beings cannot be separated from nature. There is therefore an overwhelming desire to conquer the natural world or dominate it ... [t]he African worldview is eco-centric: ... It binds humans and the rest of nature together with the same umbilical cord.19

John S. Mbiti, a renowned scholar of African religions and philosophy, argued that diseases and misfortunes are regarded as having social and religious foundations. The treatment process must therefore go beyond merely addressing their symptoms, and must address their social implications and develop strategies to prevent their reoccurrence.20

Just as ethnomedical therapies differ across societies, the holistic appeal of traditional medicine is a culturally relative phenomenon. There may be instances where the relationship between the traditional healer and patient is impersonal. Nonetheless, the dominant African worldview and the concept of personhood proffered by scholars like Mbiti and Kalu favor the holistic flavor of traditional medicine.21

19. Maurice M. Iwu, Preface: Symbols of Power and Health, in De Smet, Herbs, Health and Healers at 9 (cited in note 11). But see Phillips, Health and Health Care at 81 (cited in note 17). Phillips asserts that stereotypes suggest first, for example, that traditional medicine is holistic, whilst modern medicine sees only the disease. This might be true in relatively isolated, small-scale societies, but in large Asian and African villages and towns, there is probably almost as much impersonal treatment by traditional healers as there is by practitioners of modern medicine. The holistic appeal of traditional medicine—that it considers the patient as a whole person, in his or her domestic and social setting—may in fact be perpetuating a false image.

20. See John S. Mbiti, African Religions and Philosophy 162-67 (Heinemann 1969). See also Ampofo and Johnson-Romauld, Traditional Medicine at 24 (cited in note 18) (arguing that in Africa, disease is not just a malfunctioning of the body or an organ but essentially a rupture of life's harmony with nature).

21. In Africa, according to Mbiti, the individual's needs, rights, joys, and sorrows are woven into a social tapestry that denies singular individuality. Traditional medical practitioners symbolize the hopes of society: hopes of good health, protection and security from evil forces, prosperity and good fortune, and ritual cleansing when harm or impurities have been contracted. See Mbiti, African Religions at 166 (cited in note 20). Ogbu Kalu argues that crucial to indigenous traditions is a religious cosmology with an awareness of the integral and whole relationship of symbolic and material life: ... By sacralizing nature, indigenous worldviews purvey an ideology which is at once more eco-sensitive, eco-musical and devoid of the harsh flutes of those who see nature as a challenge to be conquered, exploited and ruled. They view the environment not in terms of competing interests but as the playing field on which all other interests intersect.
Linked to the holistic nature of ethnomedical therapies in the developing world is the prohibitive cost of orthodox (Western) malaria medicines, emergence of strains of malaria that resist available Western drugs, and the lack of interest of leading transnational pharmaceutical companies to research affordable malaria drugs because of the poor return on investment. All of these factors conspire to make traditional medicine relevant and popular for malaria treatment in African rural communities.

IV. TRADITIONAL MEDICINE AND MALARIA IN SOUTHEASTERN NIGERIA: THE VOICES OF RURAL POPULATIONS

The following section focuses on the behavioral attitudes, patterns, and beliefs of indigenous populations concerning malaria, drawing on a range of semi-structured interviews conducted while on a short visit to Nigeria in December 2000. My investigation builds on previous studies of traditional therapies in southeastern Nigeria. In a study conducted in 1999, Okafor identified 55 plants used in traditional medicine by 75 percent of rural populations that inhabit the low-lying Ibo heartland in Eastern Nigeria. Local people use these plants as therapies for a plethora of diseases and health conditions including malaria and its symptoms.

In the study I conducted, every interviewee admitted to having had malaria many times in the past, proof that where malaria was endemic, it was a common ailment that attacked local populations intermittently. An overwhelming 90 percent of the interviewees said they knew they had malaria if they began to have such symptoms as pain, severe fever, head and joint aches, loss of appetite, vomiting, dizziness, and fatigue. Although their responses are varied, the interviewees described the actions they took to obtain diagnosis and therapy when they suspected they had malaria. These actions indicate the popularity of traditional medicine. About 65 percent consult traditional healers that predominantly use natural herbs and roots as curative therapies. About 25 percent rely on immediate self-help by seeking out western drugs from vendors who are popularly called “patent medicine dealers,” and the remaining 10 percent consult medical doctors in clinics and hospitals located in the community.

Maurice M. Iwu, Preface Symbols of Power and Health, in De Smet, Herbs, Health and Healers at 9 (cited in note 11).


23. The symptoms described correspond almost exactly to the symptoms that Western medical science associates with malaria. See, for example, WHO, Management of Severe Malaria: A Practical Handbook 1 (WHO 2d ed 2000).
The two groups that rely on self-help or consult medical doctors in clinics/hospitals admitted to having also consulted traditional healers for treatment in the past.24

Reasons for resorting to traditional medicine ranged from its relative cheapness to the ready availability and accessibility of traditional healers in the community. Consistent with the views of the interviewees, Lateef A. Salako, Director-General of the Nigerian Institute of Medical Research, observed that

[i]n many parts of Africa, unofficial health care systems and operators exist side by side with the official system and include herbal healers, medicine vendors and spiritual healers. These alternative systems are usually more readily accessible and cheaper than the formal system, and many patients seek treatment from these groups first, turning to the formal system only when they fail. There is a clear need to improve the formal system so that it becomes more accessible, acceptable and affordable to ordinary people and thus becomes their first choice.

Two traditional healers showed me a collection of herbs and roots that they use as malaria therapies. The healers have a local name for every herb, bark, or root, and each therapy is administered in a variety of ways.

One difficult question was how the healers knew that those herbs and roots had medicinal value. They explained that over the ages, traditional medicine had been handed down from generation to generation through lineage, family, or even oral tradition, and that before Western medicine and colonialism arrived in Africa, the traditional use of herbs for therapies was already established and widely used. Championing this school of thought, Dr. Raymond Arazu, a Catholic priest and a leading traditional healer in Eastern Nigeria who uses indigenous herbs for multi-disease curative therapies, observed:

[t]he plants which God created are there for our needs—their roots, the leaves and so on. From time immemorial, everywhere, people have used these means to cure sick people. There are about five different kinds of plants whose leaves when used in the proper way cure ulcer. . . . I am only following what my people . . . were doing before this modern craze of the petrochemical drugs which have seemingly replaced the herbs.26

Observations and responses from healers and interviewees who adhere to traditional medicines revealed two sets of related facts. First, malaria is an endemic, life-threatening ailment of the populace. Almost everyone knows what it is, or at least could correctly guess its symptoms. They call it “iba” in their mother tongue, Igbo. Second, traditional herbs exist, and are readily available within the community’s

24. Dr. Okafor stated that about 40 percent of his malaria patients are brought to the clinic with severe and sometimes life-threatening cerebral illnesses after having visited traditional healers in search of therapies. Interview with Dr. I.P.S. Okafor, Medical Director of St. Victoria Hospital, Ekwulobia, Anambra State, Nigeria (Dec 18, 2000).


forests for its treatment. These facts are consistent with the predominant worldview of the Ibo ethnic group in Eastern Nigeria as mirrored by the world acclaimed novelist Chinua Achebe in his famous work, *Things Fall Apart*. In the book, the fictional Okonkwo applied therapies from a bundle of “grasses and leaves, roots and barks of medicinal trees and shrubs” to his daughter who suffered from iba (malaria). The type of ethnomedical therapy described by Achebe abounds in almost every African society where malaria is endemic. These therapies have existed for ages and are still alive today. They have a sizeable number of adherents and many men and women, like Okonkwo, are repositories of this knowledge. Such traditional therapies interact with modern medicine in an environment of medical pluralism.

For these reasons, it is pertinent to evaluate the interaction between traditional malaria therapies and global malaria control policy. This evaluation will be conducted within the paradigmatic frameworks of “globalization-from-above” and “globalization-from-below.”

V. MULTILATERAL MALARIA CONTROL STRATEGIES: GLOBALIZATION-FROM-ABOVE OR GLOBALIZATION-FROM-BELOW?

Richard Falk coined the terms globalization-from-above and globalization-from-below as operational paradigms to explore the dimensions of emergent global governance in a world order marked by the Westphalian model of statehood. Contemporary global governance has witnessed tensions between states on the one side, and a coalition of transnational civil society on the other. Global policies incubated at multilateral fora by states acting as harbingers and repositories of political power within geopolitical boundaries often run counter to civil society oriented ideals.

Falk proposes a framework aimed at the animation of civil society in relation to a transnational agenda involving human rights, environmental protection, public health, social and economic justice, disarmament, and other substantive areas in which global market forces and states are perceived to be endangering human well-being. These civic pressures constitute a formidable challenge to governments to be more protective of global public goods. The multiple dimensions of this civic society challenge come within the rubric of globalization-from-below. In sharp contrast, the contemporary global social and environmental agendas are often detrimental to a range of public goods. This latter phenomenon, driven by market forces in coalition with most governments, is attributed to globalization-from-above.28

27. See Chinua Achebe, *Things Fall Apart* 66–86 (Heinemann 1958). Consider the protagonist Okonkwo’s role as a repository of ethnomedical knowledge regarding malaria in illustrating how his worldview related to traditional and contemporary malaria therapies.

Globalization-from-below does not constitute a kind of teleological cosmopolitanism. Its agenda does not foresee the extinction of the Westphalian state, neither does it envision the nation-state as completely irrelevant in global governance dynamics. Rather it proposes the urgent development of a symbiotic framework based on a dialogue between emergent transnational civil society forces and states as repositories of political leadership and power. Relying on theorists like Koskenniemi and Habermas, Falk argues:

[D]ialogue here is not just words, but the foundation of communicative action that is the essence of democratic practice. . . . Given the structure of international society, and its continuing adherence to a strong doctrinal view supportive of sovereign rights, the most appropriate role for the jurist is to avoid the temptations of apologetics or of utopianism, neither relinquishing juridical autonomy to the political domain nor setting forth legalistic positions that are dismissed as pathetic fantasy by those entrusted with the responsibilities of political leadership. . . . [I]nternational law and lawyers can best contribute to the prospects of fashioning a more humane type of global civilization by self-confidently entering the dialogic space between entrenched political power and transnational social forces, acknowledging the relevance of both, but subordinating their autonomy to neither.

Applied analogously to the interaction between people or civil-society-oriented traditional malaria therapies (globalization-from-below) and malaria control policies of multilateral agencies (globalization-from-above), the pertinent task is to explore whether the dialogue between the two has occurred, is indeed occurring now, or will likely occur in the near future.

Traditional medicine is generally endorsed by the WHO, which has called on countries to integrate traditional medicine within their national health care systems. In its *World Health Report 2000*, which focused on improving the performance of health systems, the WHO defined a health system to include “all the activities, whose primary purpose is to promote, restore or maintain health.” According to the WHO, formal health services, including the professional delivery of personal health attention and actions by traditional healers are clearly within the boundaries of this definition.

In a seminal article, David Nabarro, former Project Director of RBM, stated that

[w]ithin developing countries, the private sector (whether in the form of a licensed medical practitioner, private pharmacy, or traditional healer) is very often the main source of advice and treatment for all people, including the poor. Government health services will need to acknowledge this and develop better ways of working with and regulating the different types of practitioners to provide essential public health services.

29. Id at 206–07.
Despite this tacit recognition of traditional medicine by the WHO, it is curious that nothing in either the RBM Campaign or its sister partnership, the MMV, expressly mentions the integration of traditional malaria therapies as part of its operational framework.

The visions of both RBM and MMV are commendable for their innovative public-private sector partnership and governance of malaria. Nevertheless, their visions would remain flawed if their reach systematically relegated traditional medical therapies to the peripheries of global malaria governance. The prevailing emphasis on insecticide-treated bed nets (in the case of RBM) and production of new malaria drugs every five years (in the case of MMV) has forced the WHO to enter into joint ventures with corporate entities to foot the bill of implementing these multilateral strategies. These agreements cloak the corporate entities involved with a sacrosanct juristic and corporate veil marked by absolute autonomy that cannot be challenged by WHO member states, transnational civil society networks, or local populations who live with the burdens of malaria.

As Yamey observed, "[o]ne problem with huge global partnerships [like RBM] is that... they end up being accountable to nobody. One function of reporting their meetings and activities is to expose them to some sort of scrutiny and help them become accountable to those they serve." In this sense, both the RBM and MMV can easily be guilty of globalization-from-above.

Moving forward, I propose an immediate dialogue, in the policy arena, between civil-society-oriented traditional approaches to malaria and governments within national jurisdictions in malaria-endemic countries. The dialogue within countries would aim at what I call the scientification of traditional malaria therapies. What emerges from the dialogue within countries would transcend national jurisdictions and forge transnational dialogues aimed at evolving an inclusive malaria globalism based on multi-stakeholder participation.

My proposition for the scientification of traditional malaria therapies does not necessarily mean that scientification will follow the analytical progression and methodology of western science. Science, in some sense, is multicultural, and the multiculturalism of science applies to traditional herbal medicine in most parts of the developing world. In other aspects of traditional medicine where the multiculturalism of science cannot easily be established and extrapolated across diverse cultures, there is a need for further and continuous dialogue between civil society networks and states.

33. This proposal is not novel, as many countries have initiated a process of harmonizing traditional medical therapies with Western medicine. This is done by incorporating aspects of traditional healing practices, mainly with herbs and roots that are scientifically proven to have medicinal value, as part of national health care systems. See, for example, Murray Last and G.L. Chavundika, eds, *The Professionalisation of African Medicine* (Manchester 1986) (giving a useful overview of the prospects and ambiguities of traditional medicine across African societies).
to forge a synthesis. In other words, an epidemiological fertilization of ideas across multilateral, transgovernmental, and transcivil society networks is urgently needed. This may be the only viable path to a humane multilateral malaria governance founded on an activation of people-oriented medical therapies, achieving the more desirable form of globalization-from-below.

VI. IS SCIENCE MULTICULTURAL?: FAIRNESS, LAW, INTELLECTUAL PROPERTY, AND TRADITIONAL MEDICINE

Most of the herbs used for ages by populations in Africa, Asia, and Latin America as traditional therapies for ailments (including malaria) have now been universally acclaimed as having medicinal and scientific value.34 There are many examples of appropriation of indigenous scientific knowledge. Quinine, a well-known and universally acclaimed cure for malaria, comes from the bark of the Peruvian cinchona tree. Andean indigenous populations used quinine as a cure for fevers, supposedly learning of its medical efficacy by observing feverish jaguars eating it. Other notorious examples of Western appropriation include the rosy periwinkle plant, unique to Madagascar, which contains properties that combat certain cancers. The anti-cancer drugs vincristine and vinblastine have been developed from the periwinkle, resulting in over $100 million in annual sales for Eli Lilly and virtually nothing for Madagascar. In the same fashion, a barley gene that resists the yellow-dwarf virus has been the product of breeding and cultivation by Ethiopian farmers for centuries. Scientists and farmers in the United States patented the barley variety and now receive enormous profits from its current cultivation in the US, but the Ethiopian farming communities that originally developed the variety receive nothing.

The protection of traditional medicine (indigenous herbs and plants that have medicinal value) within the regime of intellectual property has been intensely controversial and politicized in recent years.35 Those not wishing to extend patent protection to traditional medicine may claim that traditional medicine is not novel and therefore does not meet the requirements for a patent; or believe that the desire to increase access to medicines is satisfied by limiting the number of patents granted.36

34. See Naomi Roht-Arriaza, Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities, 17 Mich J Intl L 919, 920-27 (1996) (noting that many of today's common remedies were often first developed by healers prior to contact with industrial societies).
36. See Carlos Correa, Integrating Public Health Concerns into Patent Legislation in Developing Countries 28 (South Centre 2000).
Although the issue of protection of traditional knowledge arises in a range of multilateral normative and conventional provisions,\(^{37}\) patentability requirements under the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS") have overshadowed debates on the modus operandi of such protection in the multilateral arena.

To pass the patentability test under the TRIPS Agreement, Article 27 requires an inventor to prove that his invention is new (novelty), shows an "inventive step" (the invention was non-obvious), and that the invention is industrially applicable. Following these requirements, some scholars have suggested that holders of traditional medical knowledge face three major impediments to obtaining patent protection. First, most traditional medical knowledge is ancient and therefore does not meet the requirements of novelty and inventive step. Second, traditional medical knowledge is held collectively; there is no single individual or group of individuals that can be identified as an inventor in whose name the application may be filed. Third, the complexity and cost of patent applications are beyond the reach of traditional knowledge holders.\(^{38}\) The veracity or otherwise of these contentions is beyond the scope of this article; nonetheless, a relevant question remains: how do we develop a fair international regime that protects indigenous medical knowledge held for generations by societies in the developing world?

The conundrum here is to reconcile the provisions of Article 8(j) of the Convention on Biological Diversity with the novelty and inventive step requirements of TRIPS Article 27. One way to mitigate the harshness of the novelty/inventive step requirements under TRIPS is to adopt a sui generis model law for "minor" inventions that fail to meet these requirements.\(^{39}\) While I agree with this view, it is of utmost importance that such sui generis laws have the capacity to prevent "biopiracy" of the previous decades that was the hallmark characteristic of the examples offered by Roht-Arriaza.\(^{40}\) Effective protection of traditional medical knowledge must strive to equitably match the so-called "moral victory" of the global South under the

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37. For instance, Article 8(j) of the United Nations Convention on Biological Diversity provides that each contracting party shall, as far as possible and as appropriate, [subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations, and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

38. See Richard Wilder, Protection of Traditional Medicine 21 (WHO 2001).


40. Although no unanimous universal definition of "biopiracy" exists, I use it in this context to refer to the immoral practice whereby Western pharmaceutical corporations reap unjustifiable profit from traditional medical knowledge, therapies, and practices held by communities in the developing world for ages by claiming the invention and patent of those therapies and products. See the examples offered by Roht-Arriaza, 17 Mich J Int'l L at 920-27 (cited in note 34).
Convention on Biological Diversity with the “legal victory” of the North under TRIPS.

VII. SUMMARY OF THE ARGUMENTS: TOWARDS A HUMANE MULTILATERAL MALARIA REGIME

One of the formidable challenges of multiculturalism is to reconcile the tensions between the core of multilateral health regime and the peripheries. Using multilateral malaria control policy as the subject of analysis and inquiry, this article has explored the relevance of indigenous malaria therapies in a medically pluralistic world—a global policy universe where public health presents various challenges that continue to require multilateral and multicultural approaches. What emerges from this analysis is a largely irreconcilable tension between the core (global malaria control policy) and the peripheries (indigenous malaria therapies widely used by populations in malaria endemic regions of the developing world). Given that the core and the peripheries are bound together, any degree of tension in their co-existence inevitably leads to turbulence in global health governance.

In an attempt to harmonize the core and the peripheries, this article identifies three useful approaches: the “scientification” of traditional medical therapies in the developing world, global governance mechanisms that respect globalization-from-below, and the protection of traditional medical knowledge within the corpus juris of intellectual property.

The core of these approaches lies in the activation of people or civil-society-oriented approaches to multilateral health governance. Ethnomedicine is not just magic, superstition, or witchcraft, but an age-old health delivery system widely used by a sizeable percentage of populations in the developing world. Because alternative medical therapies are either unaffordable to or unpopular among these populations, continued relegation of African ethnomedicine to the peripheries of global malaria regime is unabashedly discriminatory. Although commendable, the vision of contemporary multilateral malaria control strategies—the RBM Campaign and MMV—ought to be sensitive to the constituencies they serve: indigenous communities in malaria endemic societies where the mortality and morbidity burdens of the disease are heaviest. RBM and MMV partnerships must rapidly go beyond the concerns of insecticide-treated bed nets and affordable new malaria drugs. They must now respond to the behavioral patterns of local populations to indigenous malaria therapies.

How best then can this regime deficit be closed? We need a more inclusive and multi-stakeholder approach to multilateral malaria control policy. To ensure stability and peace in the global neighborhood, innovative approaches to multilateral malaria governance must harmonize the tensions between the core global malaria control regime and the traditional therapies at the margins in a way that projects
multilateralization of malaria as humane and equitable, rather than as a predatory enterprise.