



Rethinking Malaria in the Context to COVID-19

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“Rethinking Governance of Malaria,”
by Michael R. Reich and Speciosa Wandira Kazibwe

Note: This preprint is part of the “Rethinking Malaria in the Context of COVID-19” series. All of the manuscripts produced in this effort will be submitted for peer-review and published as a compendium. This preprint is being made available to enable a broader discussion around key challenges and solutions.

The “Rethinking Malaria in the Context of COVID–19” global engagement was constituted as a consultative process to ‘take stock’ and push beyond conventional thinking to question fundamental assumptions and approaches, with a focus on bold new ideas to achieve real-world progress. The process managed by three governance bodies comprising a Steering Committee, Working Group Co-Chairs and contributing authors, and an External Advisory Committee. For a listing of the “Rethinking Malaria” Working Group Co-Chairs and contributing authors and External Advisory Committee members, see Text A1.

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Supporting Information:

Text A1: [“Rethinking Malaria in the Context of COVID-19” website.](#)

Michael R. Reich
Taro Takemi Professor, Emeritus
Harvard T.H. Chan School of Public Health
Boston, MA, USA
michael_reich@harvard.edu

Speciosa Wandira Kazibwe
Senior Presidential Advisor on Population and Health
Vice President Emeritus
Kampala, Republic of Uganda
speciosa.wandira@gmail.com

Abstract

Rethinking the governance of malaria requires consideration of the core components of governance, including who has power, who makes decisions, how players make their voice heard, and how players are held accountable. This paper examines the governance of malaria at the community, the nation-state, and global levels. The paper summarizes the findings of five innovative research papers on malaria governance related to: (1) malaria in the governance of district health systems, (2) governance lessons for malaria learned from other disease control programs, (3) governance issues related to malaria financing, (4) efforts at decolonizing malaria governance, and (5) strategic communications for the governance of malaria programs.

The authors of these five research papers related to malaria governance met weekly for six months to discuss and debate issues specific to each paper and also identify common themes. These common themes became the basis for “five proposed changes” in malaria governance, which are presented in this paper: (1) change in the locus of malaria decision-making, (2) change in the package of malaria interventions, (3) change in the structure of accountability related to malaria progress, (4) change in the availability of public data on malaria, and (5) change in communication about malaria. These changes hold the potential for a fundamental restructuring of malaria governance, and for revitalizing progress in moving towards the elimination of malaria in endemic countries.

The paper concludes with proposals for specific actions related to each of the five changes in malaria governance. Adopting and implementing these specific actions may be challenging, because they require changing the distribution of power among institutions and individuals at the global, national, and community levels.

Introduction

Rethinking the governance of malaria control requires a consideration of two key questions: What does governance mean? Why does governance matter in the fight against malaria?

Governance is a complex concept with many different definitions. One simple definition, from the Institute on Governance in Canada, is “how society or groups within it, organize to make decisions” [1]. The Institute additionally explains that the definition includes the importance of authority, decision-making and accountability—who has power, who makes decisions, how players make their voice heard, and how players are held accountable. These core considerations of power, decision-making, transparency, and accountability shape our approach to rethinking governance related to malaria.

In this analysis, we consider these core aspects of governance at three different levels: at the *community*, *nation-state*, and *global* levels. At each level, we consider: Who makes decisions that shape a nation's malaria programs goals and strategies? Where do financial resources to support these programs come from? Who is held accountable for pursuing the stated strategies and achieving goals? Who is documenting, measuring and assessing whether the goals are met? And who receives information (and in what forms) about progress and setbacks in malaria control and elimination? Too often, the answers to these questions have been just “the malaria community.” However, the “malaria community” typically focuses on scientific, operational, and behavioral questions. This focus leaves other stakeholders out of malaria-related discussions and decisions that affect them (for example, politicians, civil servants, farmers, traditional chiefs and local leaders, parents and children, and community members). In our rethinking of malaria governance, we have sought to include attention to these other stakeholders.

We believe that malaria governance matters, from an ethical perspective, for both *instrumental* reasons (because of the consequences for performance) and *intrinsic* reasons (as a social goal in itself). The instrumental reasons relate to ways in which better governance potentially improves the control of malaria in endemic countries and thereby improves health indicators (as objective measures). In short, better governance for malaria moves countries towards malaria elimination. Empirical evidence for this relationship, however, remains weak. One analysis of eight governance indicators did not find a significant relationship between better governance and improved malaria control [2].

The intrinsic reasons state that better governance and better ways of making social decisions about malaria control are important to pursue for themselves, as part of what constitutes a good society, even if the actions taken do not improve performance (that is, reduce the health burden of malaria). In short, better governance for malaria moves countries towards better societies. The question of what constitutes a “better society” represents a value-based judgment and raises fundamental issues of ethics [3], including who decides on social values and how.

Governance issues represent a critical first step for the “Rethinking Malaria In the Context of COVID–19” project. In many ways, considering how to improve governance sets the stage and the context for the other two Working Groups and their analyses of integrated delivery of malaria control and training capacity for malaria workers. In addition, the global COVID-19 pandemic has raised numerous questions of governance that have helped to broaden this “Rethinking Malaria” project. Global experiences with the pandemic remind us that the governance aspects of top-down approaches to disease control have made huge differences in the effectiveness of national efforts to control the pandemic. Further, COVID-19 has shown that top-down approaches to disease control will not work without equal efforts from bottom-up approaches. We suggest that the existing approaches to malaria control need to be turned on their head, using a new paradigm that starts with communities and keeps them in the lead.

With this proposition in mind, we engaged a group of “rethinkers” to critically examine what constitutes “business as usual” for malaria governance and propose new ways of thinking and acting for the global malaria community (Table 1).

Table 1. Five Working Papers on Rethinking Malaria Governance

1. “Malaria in the Governance of District Health Systems: Engaging Communities and Local Authorities” <i>by Nii Ayite Coleman</i>
2. “Rethinking Malaria: Governance Lessons from Other Disease Programs” <i>by Kelechi Ohiri, Ifeyinwa Aniebo, and Olufunmilayo Akinlade</i>
3. “Malaria Financing” <i>by Ravi Rannan-Eliya</i>
4. “Decolonizing Malaria Governance” <i>by Jesse B. Bump and Ifeyinwa Aniebo</i>
5. “Rethinking Communications for Governance of Malaria Programs” <i>by Jimmy Opigo and Anya L. Guyer</i>

These five working papers provide ideas from different perspectives about how to transform and improve malaria governance. Members of the Working Group on Malaria Governance met weekly for six months (from late 2020 until mid-year 2021) to discuss issues related to the working papers and identify common themes that became the basis for the “five proposed changes” (presented in Table 2). The Working Group

also met with key stakeholders in malaria and members of the Advisory Committee, who provided comments and suggestions that were incorporated into the papers.

Table 2. Five Proposed Changes in Malaria Governance

1. Change in the locus of decision-making
2. Change in the package of interventions
3. Change in the structure of accountability
4. Change in the availability of public data on malaria
5. Change in communication about malaria

- (1) Change in the locus of decision-making: To shift from global and external decision-makers, to the citizens of malaria-endemic countries, with a focus on the leaders of the malaria control program and the local communities affected. Each malaria-endemic country should consider the creation of a national malaria advisor to the president, to raise the political profile of malaria and provide malaria information directly to the highest political leaders. The ongoing discussion of “decolonizing” global health has important implications for how global health institutions operate, but also for how decisions are made within countries for malaria (and other health issues). Effectively engaging the local knowledge of communities and the collaboration of traditional chiefs and local leaders is a major challenge for all malaria-endemic countries. The shift in decision-making to communities should be supported by funding that flows directly to communities, for local decisions on how to eliminate malaria as a social problem. Communities are best placed to identify the local malaria barriers, and to participate in the solutions. But to become part of the solutions, communities need enhanced financing, authority, and capacity as well as decision-making power.
- (2) Change in the package of interventions: To shift to intervention packages decided in collaboration with local communities so that strategies fit with malaria epidemiology and local practices and values; this could mean, for example, to shift from universal distribution of insecticide-treated nets to targeted distribution. The package of interventions should seek to address the environmental and social determinant aspects of malaria. This change involves a vision of malaria as a social problem more than a medical problem, and would require more multisectoral approaches. Changes in the package of interventions will be necessarily shaped and constrained by the availability of financial resources, and the challenges of raising increased donor resources for malaria in the post-COVID global environment.
- (3) Change in the structure of accountability: To shift from a focus on accountability to external organizations (through donors), to a focus on accountability within endemic-countries, both at the national and the local levels. This change requires the engagement of national, state, and district assemblies, as well as traditional chiefs and local leaders, to hold the malaria control program responsible for delivering results. The shift to a focus on local accountability could also include efforts to raise local resources for malaria and to count ongoing local efforts as part of the resource mobilization for malaria. The national focus requires more effective structures and processes to hold governments and elected leaders accountable for addressing the barriers people face when seeking quality care for malaria. This shift could strengthen mechanisms of accountability between government, health-care providers, and users of services.
- (4) Change in the availability of public data on malaria: To shift from delayed, incomplete, and low visibility data about malaria deaths and cases, to publicly visible, timely, and easy to understand

data on the health consequences of malaria. Public data on malaria deaths will help de-normalize social acceptability of the health consequences of malaria. Greater public availability of data on malaria can contribute to the creation of a new structure of local accountability for malaria, and to use of effective strategic communication for malaria stakeholders.

- (5) Change in communication about malaria: To shift from a focus on behavior change communication that views beneficiaries as malaria control implementers, to a focus on strategic policy communication [4] that engages key stakeholders in the governance changes presented in the previous four categories. Strategic communications is required to design and implement the fundamental changes in malaria governance required to move towards malaria elimination.

Our intention in this Working Group was not to produce a consensus plan for transforming malaria governance. Instead, it was to identify areas where changes in malaria governance could have significant impacts on the success of malaria control, in order to improve health outcomes and build stronger societies. We offer these proposed five changes in malaria governance for discussion by an expanded “malaria community.” Building consensus around these five changes and implementing them will not be easy. The changes involve significant changes in power and in how malaria control happens. But we believe that a global debate on these five changes is critical to *Rethinking Malaria* and to putting malaria back on track toward elimination.

Below we present a summary of each working paper, followed by a discussion of the challenges of implementing these changes in malaria governance.

Rethinking District Governance and Community Engagement (Working Paper #1)

The first theme is the importance of rethinking community engagement in malaria control. While calls for community engagement appear within the literature on malaria, they rarely take into account the complex landscape of stakeholders and institutions that exist within malaria endemic community. Nii Coleman examines these issues for Ghana, based on his 34 years of experience working in that country’s Ministry of Health, within district hospitals, as District Medical Officer, as Regional Director of Health Services, and in leadership roles in the national office [5]. He reports that stakeholder engagement is typically viewed as an ad hoc mechanism to implement specific malaria program objectives, such as the distribution of insecticide-treated nets. Those stakeholders include: households, communities and traditional chiefs and local leaders; healthcare service providers; the district health authorities; the District Assembly; and the Social Services Sub-Committee of the District Assembly. He assesses the reasons for ineffective engagement of these groups and institutions in malaria control in Ghana. The fundamental problem, according to Coleman, is that malaria is viewed as a medical problem requiring medical interventions, rather than a social problem requiring social interventions. He writes:

The goal of elimination and eventual eradication of malaria without effective control of mosquito breeding and public health regulation is fundamentally flawed. Elimination and eventual eradication of malaria would require a paradigm shift from a medical perspective to a social determinant approach. A social determinant approach to malaria would engender a sustained and systematic engagement with the whole spectrum of stakeholders in the communities.

Rethinking community engagement with malaria, to move towards elimination, thus requires rethinking community health governance, in Ghana and elsewhere. This requires stepping out of the malaria silo and into the many relationships in communities, especially between traditional and modern political authorities. Coleman recommends three specific strategies to create effective deliberation and action on

malaria within communities: (1) the creation of alliances to govern community health involving many different stakeholders; (2) the support and development of existing local institutions that are supposed to produce multi-sectoral action (such as Ghana’s Social Services Sub-Committees in the District Assembly); (3) promote a unified District-level health leadership that can design malaria implementation strategies that engage different stakeholders, including healthcare providers in both public and private sectors.

The specifics of community engagement for malaria will vary by country, depending on local history, stakeholders, and institutions. But each malaria-endemic country will need to find ways to make “malaria” owned by communities, and viewed by local leaders as a social problem and an indicator of social underdevelopment. Malaria deaths have to be de-normalized within communities, with demands for accountability to political and health authorities. This governance transformation will require discussions within villages and communities and political institutions, and a rethinking of what malaria means for communities. Until that happens, significant progress is unlikely.

Rethinking Lessons from Other Disease Programs (Working Paper #2)

What governance lessons can the malaria community learn from other successful disease control programs, especially from successes in eliminating or eradicating an infectious disease? For example, what can be learned from the governance of polio or smallpox, and how can those lessons be applied to malaria efforts? This apparently simple question is actually quite complex. There are significant biological differences in parasites and transmission cycles across diseases that make it difficult to generalize to malaria. In addition, the successes occurred in different countries and different historical moments, again making it difficult to apply “lessons” to malaria today. Kelechi Ohiri and his colleagues in Nigeria (Ifeyinwa Aniebo and Olufunmilayo Akinlade) agreed to take on these challenging questions, and they propose a series of lessons and insights for the malaria community to consider [6].

Ohiri and colleagues examined the literature on how disease control was achieved (or sought) for four other conditions: (1) smallpox, worldwide; (2) polio, in Latin America and the Caribbean; (3) onchocerciasis, in Sub-Saharan Africa; and (4) the ongoing COVID-19 pandemic, globally. Their analysis of the published literature on these disease control programs, along with interviews with people who have been involved in these efforts (including malaria), led them to eight different governance themes for successful disease control. For each theme, they discuss the implications for malaria. Here are the eight themes they identify:

1. International support and coordination: One of the main features of the successful programs was a high level of international collaboration, advocacy and support that galvanized the world to prioritize and tackle these issues.
2. Financing: Closely linked to global advocacy is international and domestic resource mobilization to support the global efforts at disease control and elimination.
3. Country ownership: Independent actions by countries to test many approaches simultaneously across different sociocultural and epidemiological contexts was an important success factor for other disease control programs.
4. National program structure and management: Successful disease programs have emphasized the importance of strong management, integration in the national health system, and buy-in by top political decision makers.
5. Community engagement: Community engagement and participation was critical for successful global disease programs. Top-down approaches alone have limited effectiveness.

6. Data collection and use: Disease eradication programs depend on real-time, high-quality data for surveillance and monitoring, and also to reprioritize and align program strategy, and improve the efficient targeting and deployment of interventions.
7. Multisectoral collaboration: Multisectoral collaboration is critical to control the spread of infectious diseases (such as COVID-19) as well as mitigation of its impact on populations.
8. Technology and innovation: Technology innovation played a crucial role in the success of some global disease control programs by transforming the options available for interventions and thereby accelerating the pace of disease eradication.

These eight themes may not seem new or innovative at first look, but the implications for “business-as-usual” malaria control are significant and striking. The details presented in the paper’s Table 1 provides examples for each disease program along these eight themes, and the implications for malaria.

This paper concludes that there is not a single governance package that can be applied in a cookie-cutter fashion for all disease control programs, or even for all malaria programs. But the examination of other disease control program does raise many strategic questions about how malaria governance can be improved in the community, at the nation-state, and in global institutions. As Ohiri and colleagues write, experiences with other disease control programs offer many potential lessons, which could suggest “additional ideas and inspiration for a more robust push towards malaria eradication.”

Rethinking Malaria Financing (Working Paper #3)

The ongoing global COVID-19 pandemic makes it difficult to imagine a significant increase in donor funding for malaria. Indeed, every global health program is seeking to augment its funding, creating strong competition from other health priorities (tuberculosis, HIV/AIDS, chronic diseases, neglected tropical diseases, and on). The economic chaos caused by the pandemic continues to create political disruption and confusion, not only in European donor nations but also in major low- and middle-income countries (such as India, Brazil, and Mexico). In his paper on malaria financing, Ravindra Rannan-Eliya concludes that the current environment makes an increase unlikely for global contributions in the fight against malaria [7].

Without new global financing, what can be done? According to Rannan-Eliya, the malaria community will need to find ways to do better with the current external financing package (assuming that existing international financing continues). This scenario would require finding ways to increase the technical efficiency of expenditures and strategies for malaria control, while considering the distributional consequences for equity. Some efficiency gains could also be achieved by reallocation of malaria activities, for example, by not providing insecticide-treated nets to urban residents who have a low probability of exposure to mosquitoes, and by focusing on rural residents who have a greater likelihood of infection. This reallocation and targeting of resources to more vulnerable groups could increase equity, but it could also encounter political obstacles from more powerful urban-based interests within countries and pressures from malaria donor agencies that focus on commodity distribution. Rannan-Eliya notes the importance of international financing, but also cautions that “excessive reliance on international funding could distort the accountability away from the people who suffer malaria to people in faraway lands who do not, with potentially negative impacts on malaria control.”

This assessment of malaria financing emphasizes the significant under-counting of ongoing domestic financing for malaria in endemic countries. According to Rannan-Eliya, domestic financing for malaria “has always been far greater” than international financing. He explains,

The financial contribution of developing countries is systematically under-counted because most efforts to track malaria financing only consider programmatic spending by malaria control programs, and do not consider and count the much larger spending by general health services in the routine treatment of malaria and suspected malaria cases, which also includes private expenditures by households.

The challenge of malaria financing is to learn how “to do more with what we have or even more with less.” Rannan-Eliya proposes to learn from national cases that have successfully eliminated malaria, especially Sri Lanka, China, and El Salvador. His analysis of these cases provides insights into governance factors that created success in the fight against malaria with existing tools and resources. These approaches, he argues, could be applicable to the “high burden–high impact countries” for malaria. In particular, he highlights the critical role of effective treatment of malaria cases in controlling transmission. He concludes that “a key challenge in eliminating malaria in many high burden countries is the weakness and low coverage of the overall health system and local health services.” Improving the health system in malaria endemic countries, in turn, depends on restructuring accountability, addressing public sector performance, and making these activities both politically feasible and politically attractive.

Rethinking Communications for Malaria (Working Paper #4)

One key component of governance failure for malaria is communications. Typically, the malaria community views “communications” as focused on “behavior change communication” (BCC) and “information, education, and communication” (IEC)—efforts to get beneficiaries to follow certain instructions, for insecticide-treated nets, for treatment, for mosquitoes. This narrow view of communications requires fundamental restructuring. Jimmy Opigo and Anya L. Guyer argue, in their paper, that communications is “the key to building a communal sense of purpose in a complex and dynamic world”—and that activity has been missing from most national malaria control programs [8].

Opigo and Guyer explain that communications plays a foundational in every aspect of a national malaria control program: “understanding how malaria affects people’s lives, promoting supportive policy, building teams, seeking money and other resources, and influencing stakeholders’ opinions in support of the program’s strategies for malaria control.” Effective communications is needed to shape decisions on malaria policy as well as promote implementation of what happens in practice. Communications is the “management glue that holds the malaria program and team together.”

This working paper explains five key components of policy communications for malaria:

1. Audiences: Who are the key stakeholders, and where are they located?
2. Message: What does the program want its audiences and stakeholders to learn, understand, and do?
3. Medium: How can the program deliver these messages to audiences?
4. Messenger: Who can deliver the messages to the different audiences?
5. Timing: When is the audience most open to receiving these messages?

The authors conclude that strategic communications [4] is an essential governance skill for malaria program directors. This skill requires development to resume progress against malaria in endemic countries. Malaria program managers need training, practice, and support in how to communicate not only with beneficiaries, malaria workers, and government agencies, but also with politicians and journalists. The new communications for malaria needs to go beyond one-way announcements from the malaria control program and find creative channels for two-way communications and listening to collect

feedback in a structured and useful manner. In short, strategic communications is a core element of rethinking governance for malaria.

Decolonizing Malaria Governance (Working Paper #5)

In recent years, commentators around the world have called for a “decolonization” of global health. Two proponents for decolonization have written, “What we know as global health today emerged as an enabler of European colonization of much of the rest of the world... Global health remains much too centred on individuals and agencies in high-income countries” [9]. What do these calls to “remove all forms of supremacy” from global health practice mean for the path to malaria elimination?

Jesse B. Bump and Ifeyinwa Aniebo examine the historical roots of malaria as a disease, malaria as a focus of study, and malaria control as an academic activity in the processes of colonialization. They use this historical perspective to propose implications for malaria governance today [10]. By taking a “deep dive” into the history of colonialization, they recount “how malaria became a colonial problem, how malaria control rose to prominence as a colonial activity, and how interest in malaria was harnessed to create the first schools of tropical medicine and the academic specialization now known as global health.” They conclude that malaria “as we know it today. . . was produced by colonialism, and the study of malaria was intended to protect colonial interests, not to protect indigenous people or defeat the disease more broadly.”

The authors show that colonialism was “central to the creation of both malaria and its related academic enterprise” and that decolonizing requires “rethinking every underlying principle and relationship.” This historical analysis leads to two main points. First is the importance of shifting the locus of decision-making about malaria control strategies from external agencies to the endemic nation-states themselves. This shift represents more than “country ownership” and is closer to country control and national decisions. It implies significantly more power and decision space for national program managers for malaria. Indeed, they would require a new name, since they would become more than “program managers.” Second is the importance of expanding the toolbox of malaria interventions, which are derived from two of the core colonial malaria interventions, pharmaceutical treatment and insecticide-treated nets, and to include one of the colonial interventions that got lost in actual decolonization: environmental management to control mosquito breeding. Ironically, decolonizing malaria may involve returning to some colonial interventions that got lost over time.

Efforts to decolonize malaria also confront the real-world challenges of the power dynamics of overseas development assistance. The objective of greater accountability within “donor” countries for overseas development assistance can conflict with the objective of giving greater autonomy to “recipient” countries about how funds are spent on malaria. Similarly, calls to decolonize malaria within endemic countries can run up against patterns of allocation that favor national decisions over community decisions, or certain regions over others. Bump and Aniebo conclude, “Fundamentally, decolonization means rethinking and restructuring the governance relationships that shape decisions about malaria.”

Conclusion

A central challenge for each of the five proposed changes in malaria governance is implementation, actually making things happen.⁴ Many ideas about changing governance have been discussed before in the malaria community, without resulting in action, much less transformation of governance practices. How do we move from “What to do?” to “How do we do it?” in transforming malaria governance?

One problem is that the categories of “What to do?” and “How to do it?” may not be entirely distinct. Some proposals of what-to-do may provide guidance on the how-to-do-it. In addition, deciding on the details of how to achieve change often requires local knowledge, local adaptation, and local strategies—details that are produced through political analysis for implementation [11]. Thus, one way to move forward is to begin with the five strategic changes to malaria governance and consider specific actions that could advance each change.

Table 3 proposes specific actions (based on the narrative above and additional discussion) for the five changes in malaria governance. These actions require additional analysis to make them operational. It is worth noting, moreover, that the proposed actions may not always deliver better governance. Positive results may depend on conditions not identified, including, for example, who the malaria leader is, the state of the national economy, and how malaria data are presented to political leaders.

Nonetheless, the proposed actions in Table 3 can be developed into operational plans and targets for improved malaria governance. The targets can then serve as milestones for moving forward on the road to better governance for malaria in particular contexts. Adopting and implementing specific actions will be challenging because they require changing the distribution of power among institutions and individuals at the global, national, and community levels. It will be important to create a policy dialogue with key stakeholders in ways that bring them on board. This is why applied political analysis is critical to adopting and implementing specific actions in malaria-endemic countries [11]. Table 3 provides starting points for the discussions and planning for action on implementing strategic changes in malaria governance.

Table 3. Implementing Strategic Changes in Malaria Governance

Strategic Changes in Governance	Specific Actions to Consider
1. Change the locus of decision-making	<ul style="list-style-type: none"> * Create a national malaria advisor to the president (or national leader) to give malaria top priority and political salience * Involve other sectors (such as agriculture) as core partners in a national malaria elimination committee to implement a strategy of multisectoral action * Elevate the position of the malaria control program within the Ministry of Health to give it more visibility, authority, access and priority * Channel more funding, technical support and accurate data directly to endemic communities to engage local political leaders and traditional chiefs and local leaders in malaria elimination
2. Change the package of interventions	<ul style="list-style-type: none"> * Engage other sectors of government in malaria control activities related to their domains, such as agriculture, housing and development, and environment, and hold them responsible (accountability) for specific targets in non-medical malaria control interventions * Invite private companies to “adopt a district” for malaria elimination, to implement strategy of private

	<p>sector engagement in supporting the wider communities where workers live</p> <ul style="list-style-type: none"> * Finance more innovation and research on malaria prevention, control and treatment technologies by endemic-country researchers
3. Change the structure of accountability	<ul style="list-style-type: none"> * Create incentives that encourage communities to treat fevers and seek out malaria treatment to reduce in-patient hospitalization * Use up-to-date data on malaria cases to create district-by-district and state-by-state league tables to hold political leaders accountable for malaria control * Create community-response teams for malaria, with budgets, that are accountable for implementing actions in communities against malaria * Introduce routine “malaria death review” processes to determine how every malaria death might have been prevented through earlier intervention * Support the growth of civil-society social movements for malaria elimination that hold traditional chiefs and local leaders accountable for continued progress on malaria at national level, and at the global level hold donors accountable for financing strategies that align with national priorities and plans
4. Change the availability of public data on malaria	<ul style="list-style-type: none"> * Make information on recorded malaria cases and deaths publicly available on a weekly basis by district and by state * Post weekly malaria data publicly on the internet and disseminate summaries in text messages to political leaders and traditional chiefs and local leaders at national, state and local levels
5. Change communication about malaria	<ul style="list-style-type: none"> * Create a strategic communications team and strategy for the national malaria program, in addition to IEC and BCC * Conduct a stakeholder analysis of public and private sector engagement in malaria as the basis for actions of strategic communications * Work directly with district assemblies/state legislatures or other local government structures to put malaria elimination on local policy agendas and budgets * Use monthly data on malaria deaths to change social values and de-normalize malaria health consequences

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References

1. Institute on Governance. Defining governance. Available: <http://iog.ca/defining-governance/>
2. Sahu M, Tediosi F, Noor AM, Aponte JJ, Fink G. Health systems and global progress towards malaria elimination, 2000-2016. *Malar J.* 2020;19: 141. doi: 10.1186/s12936-020-03208-6.
3. Roberts MJ, Reich MR. Ethical analysis in public health. *Lancet.* 2002;359: 1055-1059.
4. Thomas GF, Stephens KJ. An introduction to strategic communication. *Intl J Bus Comm.* 2015; 52(1): 3-11.
5. Coleman NA. Malaria in the governance of district health systems: engaging communities and local authorities. Background Paper, “Rethinking Malaria in the Context of COVID–19” global engagement, September 2021.
6. Ohiri K, Aniebo I, Akinlade O. Rethinking malaria: Governance lessons for malaria from other disease programs. Background Paper, “Rethinking Malaria in the Context of COVID–19” global engagement, September 2021.
7. Rannan-Eliya R. Rethinking malaria financing. Background Paper, “Rethinking Malaria in the Context of COVID–19” global engagement, September 2021.
8. Opigo J, Guyer AL. Rethinking communications for governance of malaria programs. Background Paper, “Rethinking Malaria in the Context of COVID–19” global engagement, September 2021.
9. Abimbola S, Pai M. Will global health survive its decolonization? *Lancet* 2020;396: 1627-1628. doi: 10.1016/S0140-6736(20)32417-X.
10. Bump JB, Aniebo I. Decolonizing malaria governance. Background Paper, “Rethinking Malaria in the Context of COVID–19” global engagement, September 2021.
11. Campos PA, Reich MR. Political analysis for health policy implementation. *Health Syst Ref.* 2019;5: 224-235. doi: 10.1080/23288604.2019.1625251.