The Strategic Framework

for Malaria Communication at the Country Level

2012–2017

ROLL BACK MALARIA PARTNERSHIP

The Roll Back Malaria Partnership (RBM) is the global framework for coordinated action against malaria. Founded in 1998 by UNICEF, WHO, UNDP, and the World Bank and strengthened by the expertise, resources, and commitment of more than 500 partner organizations, RBM is a public-private partnership that facilitates the incubation of new ideas, lends support to innovative approaches, promotes high-level political commitment, and keeps malaria high on the global agenda by enabling, harmonizing, and amplifying partner-driven advocacy initiatives. RBM provides policy guidance and secures financial and technical support for control efforts in countries and monitors progress towards universal goals. The RBM Secretariat is hosted by the World Health Organization in Geneva, Switzerland.

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Cover explanation:
In the top picture, school children in Tanzania learn how to hang Long-lasting Insecticide Treated Bed Nets (LLINs). The four pictures across the bottom represent the major malaria interventions: (L to R) Indoor Residual Spraying (IRS), intermittent preventive treatment for pregnant women (IPTp), use of LLINs, and diagnosis and treatment of malaria with appropriate anti-malarial medication.

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List of Acronyms

ACADA	Assessment, Communication Analysis, Design, Action
ACSM	Advocacy, Communication, and Social Mobilization
ACT	Artemisinin-based Combination Therapy
AMP	Alliance for Malaria Prevention
AMREF	African Medical and Research Foundation
ANC	Antenatal Care
BCC	Behavior Change Communication
C4D	Communication for Development
CDC	U.S. Centers for Disease Control and Prevention
CHW	Community Health Worker
CMD	Community Medicine Distributor
GFATM	The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria
GMAP	Global Malaria Action Plan
JHU-CCP	Johns Hopkins University-Center for Communication Programs
HH	Household
IEC	Information, Education, and Communication
IMCI	Integrated Management of Childhood Illness
ITN	Insecticide-treated Bed Net
IPC	Interpersonal Communication
IPTp	Intermittent Preventive Treatment for Pregnant Women
IRS	Indoor Residual Spraying
LLIN	Long-Lasting Insecticide Treated Bed Nets
MOH	Ministry of Health
M&E	Monitoring and Evaluation
NGO	Non-governmental Organization
NMCP	National Malaria Control Program
OR	Operational Research
PATH	Program for Appropriate Technology in Health
PMI	US President's Malaria Initiative
RBM	Roll Back Malaria
RDT	Rapid Diagnostic Test
SBCC	Social and Behavior Change Communication
SP	Sulfadoxine-pyrimethamine
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

PREFACE

Systematic communication to bring about sustained changes in social norms and behaviors is increasingly understood as integral to malaria control programs. Credit is due to the Roll Back Malaria Partnership, The Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria, the Bill and Melinda Gates Foundation, the President's Malaria Initiative (PMI), USAID, and other donors for recognizing that greater urgency is needed in developing and carrying out effective communication plans in order to improve the impact of prevention and treatment efforts. We are honored to present to all of the partners *The Strategic Framework for Malaria Communication at the Country Level*, which outlines clear priorities for strengthening country capacity, honing program strategies, and sharing best practices of evidence-based communication as part of our work to control, eliminate, and ultimately eradicate malaria.

An increasing wealth of experience points to the importance of this program component. Results from Senegal indicate that intensified communication interventions and major nationwide advocacy efforts—coupled with an expansion of bed net distribution, introduction of rapid diagnostic testing, and health system strengthening—contributed to a 30% reduction in under-five mortality since 2001, saving more than 26,800 children (Mouzin et al. 2010). Other countries are also demonstrating the value of communication in mobilizing political support, improving interactions between caregivers and health workers and building trust, and engaging local leaders and communities in malaria prevention and treatment strategies.

Much work still needs to be done. At this point in the almost 50-year fight against malaria, we need to focus on ensuring that evidence-based communication is positioned as a core component of global and national malaria control policy and is allocated the resources necessary to contribute to health impact.

This document charts a Strategic Framework for ensuring that communication is placed high on the agendas of malaria policy makers and national malaria control strategies in line with the *Global Malaria Action Plan (GMAP)*. The framework provides for significant steps forward, and for a change in both ambition and innovation in tackling malaria.

We want to personally thank all of the partners and national malaria control programs for contributing their time, energy, and wisdom. This framework is a testament to their hard work, careful thought, debate, and consensus and it serves as a much-needed roadmap for positioning communication as essential to our fight against this deadly disease.

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EXECUTIVE SUMMARY

A significant scaling up of systematic communication and behavior change efforts will be needed to achieve the global targets for malaria control as detailed in the Roll Back Malaria (RBM) Partnership *Global Malaria Action Plan for a Malaria-free World (2008)*. In 2011–2012 a group of communication-oriented partners, national malaria control managers, and members of the RBM Partnership Secretariat met several times (in Geneva, Switzerland; Washington, DC; Nairobi, Kenya; and Accra, Ghana) to examine the current state of the art in health communication and articulate a *The Strategic Framework for Malaria Communication at the Country Level*.

The meetings aimed to begin a process of mobilizing political, social, and financial resources to position communication as a core component of malaria control and foster the development of more effective communication programming at the country level.

The *Strategic Framework*, drafted through a consensus process, focuses on the need to address five challenges to malaria control as stated in the RBM *Global Malaria Action Plan*. These challenges are to:

- Improve the acceptance and use of long-lasting insecticide treated bed nets (LLINs), particularly for children under five and pregnant women
- Accelerate access to and demand for intermittent preventive treatment for pregnant women (IPTp)
- Improve early treatment seeking and compliance with drug therapy (Artemisinin-based Combination Therapy — ACTs)
- Increase acceptance of indoor residual spraying (IRS) as a tool in vector control
- Strengthen a culture of malaria prevention and treatment-seeking behavior
- Mobilize political commitment and resources for malaria and for country level communication efforts

The *Strategic Framework* sets out an agenda for ensuring state-of-the-art health communication plays a stronger role in improving the impact of the global malaria control effort. It defines a common vision and goals for improving the effectiveness of malaria communication programs and recommends operations research to build a stronger evidence base for effective approaches.

KEY ACTIONS

The *Strategic Framework* describes complementary processes needed to improve the contribution of communication to malaria control. It seeks to mobilize partners in the malaria community to take the following key actions:

- Advocate for systems and programs that ensure communication is positioned appropriately within the global RBM Partnership
- Ensure all national malaria control program communication strategies are context-appropriate, evidence-based, and results-driven
- Foster capacity building in communication planning, management, and evaluation at the global, regional, national, and sub-national levels
- Invest adequate resources to ensure communication interventions achieve measurable results at the country level
- Expand the evidence base demonstrating the impact of communication interventions on social and behavioral change and thus contribute to the reduction of the burden of malaria

Intended audiences for this document are:

- **Technical staff at global, national, and local levels** charged with developing, funding, reviewing, evaluating, and/or implementing malaria prevention and control policy, strategies, and approaches.
- **RBM communication-oriented partners** engaged in developing, implementing, and evaluating communication programs/projects and who contribute to the global discourse on effective approaches to communication.

The document is divided into three major parts:

Background—Rationale and Purpose of the Framework

- Describes the challenges of improving appropriate utilization of malaria prevention and treatment interventions
- Describes the rapid pace of communication challenges over time and the need for an expanded evidence base

> "Service delivery in malaria is not only about delivering products; it is also about ensuring they are used properly. <Communication> methodologies are essential to ensure the appropriate use of interventions."
>
> **— Global Malaria Action Plan**

- Outlines a vision and goals for making communication an integral part of malaria control
- Outlines the gaps in the current malaria communication structure and obstacles to effective programming

The Role of Communication in Achieving Malaria Prevention and Control Impact and Principles of Effective Programs

- Outlines the range of ways communication can improve the impact of malaria programs
- Defines important terms and concepts of communication (including four principles underlying effective programming)

Mothers in Kaolack, Senegal, happy to have just received packaged LLINs to protect them and their families.

Strategic Framework for Advancing the Contribution and Quality of Communication

- Presents the case for increasing political commitment to communication in malaria programs
- Suggests approaches for improving capacity and coordination of communication for malaria programs at the global and country levels
- Describes the major elements of evidence-based[1] communication in country malaria programs
- Recommends development of and consensus on an operational research agenda for improving the evidence base
- Promotes development of a community of practice for sharing experiences and advancing the state of the art in communication for malaria control
- Recommends support for, and outlines responsibilities of, an RBM Communication Working Group

Actions taken to support the complementary elements of the *Strategic Framework* outlined in the last section of this document will help establish evidence-based communication as an integral part of malaria program scale up, sustained control, and elimination and improve the impact of these efforts.

Four indicators are proposed for the next five-year period as appropriate measures of progress toward this overarching objective:

- NMCPs in 80% of high-burden countries[2] have created and implemented evidence-based, national communication strategies

A child in Tanzania receives treatment with an ACT.

- 80% of high-burden countries are routinely allocating resources in their malaria control budgets to communication interventions
- RBM communication partners regularly generate and disseminate evidence of communication impact including for priorities outlined in an agreed on global communication research agenda
- Within one year, the RBM Partnership has established a community of practice and database that maps partners in the majority of high-burden countries in order to facilitate partner collaboration

Achievement of these goals will contribute to a reduction in the intolerable burden of malaria morbidity and mortality in these countries.

The concluding section of the strategy includes recommendations for next steps and indicates ways in which progress will be measured.

[1] Communication practitioners use the term "evidence-based" to indicate strategies are based on quantitative and qualitative research at designated points in a program. However, "evidence-based" is also used in this document in the more familiar (or clinical) way to mean a specific intervention has been proved to be effective under specific conditions.

[2] The 35 countries that account globally for ~98% of malaria death are termed "high burden"; 30 of these are located in sub-Saharan Africa (World Malaria Report 2011).

BACKGROUND

Rationale for and Purpose of this Framework

Achieving the Twin Goals of Access to, and Use of, Services and Commodities

Nearly half of the world's population is at risk for malaria. The World Health Organization stated that an estimated 216 million cases of malaria and more than 655,000 deaths due to the disease had occurred in 2010. Of those who died, 86% were children under the age of five. In endemic countries, malaria remains the leading cause of maternal mortality and one of the primary causes of neonatal deaths. (WHO 2011)

Global and country commitment, along with unprecedented levels of funding, has helped reduce the intolerable burden of malaria in many countries in recent years. Overall, malaria-related mortality has dropped 25% since 2000. Progress has depended on the introduction of effective technologies and new drugs and massive efforts to make commodities accessible to those who are vulnerable. While *access* continues to improve, however, the equally challenging

A health worker in rural Tanzania explains how to take the proper dose of ACT at the proper time to a young boy with malaria.

MULTIPLE COVERAGE DEFINITIONS

For malaria prevention interventions, coverage means:

Long-Lasting Insecticide Treated Bed Nets (LLINs): A household owns one long-lasting insecticide treated bed net for every two people living there and residents use them each night

Indoor Residual Spraying (IRS): The interior walls of every house that is targeted is routinely sprayed at appropriate intervals with an effective insecticide

Intermittent Preventive Treatment (IPTp): A pregnant woman living in a high transmission setting receives at least two doses of an appropriate anti-malarial drug during her pregnancy

Other vector control measures: Other targeted approaches (e.g., larviciding, environmental management, etc.) are applied wherever appropriate based on scientific evidence

For case management of malaria, coverage means:

Diagnosis: A patient with fever receives prompt parasitological confirmation by microscopy or rapid diagnostic test (RDT) of malaria diagnosis

Treatment: all confirmed uncomplicated cases of *plasmodium falciparum* are treated within 24 hours with ACTs

tasks of *creating demand* for products and services, *ensuring appropriate use*, and fostering changes in *underlying social norms* related to prevention and treatment of the disease remain daunting.

Increasing coverage—especially among those at highest risk who are often the poorest and most marginalized—requires strategically designed communication approaches tailored to local contexts.

The Roll Back Malaria *Global Malaria Action Plan* (GMAP) outlines three stages on the path toward an ultimate goal of worldwide elimination of malaria. These are *scaling-up for impact* (or SUFI), sustained control, and country-by-country *elimination*. The near-term target, SUFI, is defined as universal coverage of appropriate interventions for all populations at risk, supported by strengthened health systems (RBM 2008). (See box on previous page.)

For each of these priority interventions, current data highlight the challenges of closing gaps between access and use:

- In sub-Saharan Africa, the number of ITNs delivered by manufacturers increased dramatically from 5.6 million in 2004 to 145 million in 2010. The proportion of households owning at least one ITN in sub-Saharan Africa is estimated to have risen from 3% in 2000 to 50% in 2011. Analysis of household surveys indicates that use of ITNs has also increased, but this varies greatly by country. **In 13 countries in the African Region for which household survey data were available for 2008-2011, use the previous night (by pregnant women and children under five) varied from under 10% in Nigeria and Zimbabwe, to between 46% and 64% in Madgascar, Rwanda, Sao Tome and Principe, Tanzania, and Uganda.** (WHO 2011 and ICF International 2012)

Production of LLINs has increased dramatically over the last decade.

- By the end of 2010, a total of 35 of 45 sub-Saharan African countries had adopted IPT for pregnant women (IPTp) as national policy. **In 12 countries in the African Region for which household survey data were available for 2008-2011, the percentage of women who received two doses of IPTp during pregnancy ranged from under 15% in Madagascar, Nigeria, and Sierra Leone, to over 66% in Zambia.** (WHO 2011 and ICF International 2012)

- The number of ACT treatment courses procured by the public sector increased from 1.2 million in 2005 to 181 million in 2010. In addition, a total of 35 million treatments were estimated to have been procured by the private sector in 2010. **In 11 countries in the African Region for which household survey data were available for 2008-2010, the percent of children under five having a fever who were treated with an anti-malarial of**

THE HIGH COST OF LOW UTILIZATION

Increased utilization of both prevention and treatment interventions is necessary to decrease malaria morbidity and mortality. The cost savings associated specifically with improved prevention behaviors were calculated for the GMAP:

"....Appropriate utilization of preventive interventions is a key driver of treatment costs. For example, increasing operational effectiveness of LLINs and IRS from their current field effectiveness of 50-60% up to 98% can theoretically reduce incidence and therefore treatment costs, by almost 50%. Modeling a 98% effectiveness rate showed a potential cumulative savings globally of US$ 960 million from 2009-15. This makes a powerful argument for investing in communication and behavior change programs."

— Global Malaria Action Plan

Malaria Rapid Diagnostic Tests (RDTs) at a rural clinic in Ethiopia.

any kind within 24 hours ranged from under 10% in Rwanda, Senegal, and Sao Tome and Principe to 41% in Tanzania. In nine of these countries, fewer than 5% of children received ACTs within 24 hours. Many patients/caregivers purchase less expensive and ineffective (and sometimes fake) treatments, especially from the private sector. (WHO 2011, RBM 2008, and ICF International 2012)

- The introduction of Rapid Diagnostic Tests (RDTs) to confirm malaria diagnoses has the potential to improve treatment and reduce inappropriate use of drugs. Recent WHO guidelines recommend a universal "test and treat" strategy for malaria, mainly by use of RDTs. In 2010, a total of 48 countries reported deployment of RDTs at the community level; 11 million patients were tested in that year. Although the number of RDTs supplied by manufacturers has continued to increase, fewer than 50% of suspected malaria cases handled in the public sector were tested in the African region in 2011. Furthermore, data from a limited number of countries suggest that both microscopy and RDTs are less widely available in the private sector. **As access to RDTs increases, program managers will need to understand what the most important benefits and perceived barriers are, from the point of view of both providers and clients, to this new treatment regimen.** (WHO 2011)

- A total of 185 million people were protected by IRS in 2010, representing 6% of the global population at risk. The number of people protected by IRS in the African Region increased from 10 million in 2005 to 78 million in 2010. Use of IRS requires community acceptance and willingness not to wash or re-plaster walls following spraying. A 2012 meta-regression analysis of published studies found that **there is a need for better understanding of the situational contexts behind different levels of success related to IRS campaigns.** (WHO 2011 and Kim et al. 2012)

The Evolution of Communication Challenges over Time

A Constantly Evolving Disease Threat — and Rapidly Changing Responses

Each of these interventions is complex and all have evolved in substantial ways in the last decade. Bed nets requiring periodic retreatment are now being replaced by LLINs; multiple distribution and subsidy mechanisms are being introduced in different countries. Drug resistance has led to changes in policies, products, and treatment regimens virtually everywhere in the last decade. Insecticide resistance is a growing concern and is likely to require introduction of new products. The focus on different providers of malaria services is also shifting along with efforts to get first-line treatments and rapid diagnostic tests into communities. Many countries are giving community volunteers greater roles and also recognizing that the private sector is a major player in malaria control.

These rapid changes have made communication with different groups both urgent and increasingly complicated. Few public health priorities have required, and will continue to require, such rapid evolution of critical information and messages for an array of different audiences.

Success — A Constantly Moving Target

The hoped for advances in controlling malaria represented in the three phases outlined in the GMAP also suggest the need for major shifts in communication approaches as countries move from scale-up of interventions to sustained malaria control and, many hope, elimination of the disease. Attitudes about the threat of malaria and the urgency

of appropriate actions have already changed and will continue to change. Complacence can undermine maintenance of important practices within the health system and the home, as well as commitments at the policy level. Lessons from diarrheal disease control have taught us that important coverage gains can disappear even after new treatment strategies are initially accepted by large percents of the population. (See box below.)

SUSTAINED CONTROL — A CAUTIONARY TALE

For countries approaching large-scale adoption of malaria prevention and treatment practices, experience in diarrheal disease control provides a cautionary tale.

Child mortality rates due to diarrhea have remained unchanged for more than a decade. This is despite introduction in the 1970s of what *The Lancet* then termed "potentially the most important medical advance this century." In the 1970s and 1980s, the introduction of the first packaged oral rehydration salts (ORS), together with programs that brought about significant changes in both provider and caregiver practices, resulted in major reductions in child deaths in many countries.

However, funding for child survival in general began to decrease in the 1990s. The introduction of IMCI also lessened the focus on community and family involvement in diarrheal disease. ORS use rates stagnated or decreased. According to data from 2005-2008, only 33% of children with diarrhea in the developing world were given ORS. These data contrast with usage rates in the 1980s reaching nearly twice that in some countries. Although ORS is inexpensive, well known, and widely available, the communication challenges associated with childhood diarrhea have continued to evolve over time—and lack of attention to this complex array of factors can now be clearly seen in lives lost.

Sources: ICF International 2012, *The Lancet* 2(8084):300, UNICEF/WHO 2009.

Changes in Communication Technology — A Qualitative Shift

Increasing availability, even among some of the poorest communities, of information communication technologies, or ICTs (such as mobile phones with voice, SMS texting, and even video capability) together with social media have revolutionized the speed, cost, and especially the control of communication. Even remote groups can be reached virtually instantly and in any language. Most importantly, communication takes place increasingly through horizontal, rather than vertical channels. Consumers and clients can now be the creators of messages as well as the receivers. Information (as well as misinformation) can go "viral" in a flash. Understanding access to these new tools in countries with rapidly changing ICT environments, and harnessing their power effectively in collaboration with a multitude of potential new partners (many in the private sector), is a challenge shared by all communication programs.

Committing to Improved Communication for Malaria

Evidence of "what works" in terms of communication, and under what conditions, would be of tremendous value to programs needing to make cost effective investments to improve their malaria control results. Lack of adequate evidence to chart the way forward in different contexts has caused some to question the utility of communication in malaria programs. In addition to the challenges mentioned above, however, a number of factors at the international, national, and community levels have been responsible for gaps in the current malaria communication structures and approaches. (See box on next page.) Further, the

Mobile technology allows sharing of critical health information in Mozambique.

THE VICIOUS CYCLE OF LOW STATUS, LOW FUNDING, AND LACK OF EVIDENCE

Lack of funding for communication in national malaria programs has limited the development of capacity as well as the building of an evidence base for improved strategies and commitment.

Gaps at different levels include:

International level

- Lack of understanding and attention to proven communication interventions, leading to an absence of guidelines and tools to support country efforts
- Lack of a global coordinating mechanism such as a Communication Working Group
- Insufficient operations research to identify best practices and document lessons learned
- Insufficient evidence regarding the range of determinants associated with key interventions
- Insufficient evidence of effectiveness of particular channels, messages, or types of integrated approaches
- Lack of consistent use of limited data to determine behavior and attitude patterns in the highest risk populations
- Lack of monitoring and evaluation indicators to inform planners of results

National level

- Traditional low status and low priority given to communication leading to lack of resources and appropriate structures/staff with technical capacity
- Poor capacity to engage in behavioral and social research into household and community behaviors and dynamics—leading to untargeted and purely "promotional" messages
- Differing priorities and lack of harmonization among partners and integration with national health education services
- Over-reliance on one-time promotional events and mass media at the expense of interpersonal and community mobilization strategies
- Lack of sustained approaches using multiple channels (schools, workplace, women's groups, etc.)
- Failure to evaluate communication contributions to malaria program objectives

Community level

- Missed opportunities to ensure the participation of local political, religious, and traditional leaders in information dissemination and mobilization
- Insufficient insights drawn from community leaders and grassroots efforts
- Insufficient focus on marginalized populations that are often most at risk
- Lack of integration of malaria communication activities with other health programs (HIV/AIDS, IMCI, RH)
- Insufficient attention paid to participatory methodologies, especially in the development of messages
- Insufficient communication efforts targeted for home-based care and service providers

— Adapted from the Global Malaria Action Plan

A woman in the Philippines and her unborn child are protected from malaria by an LLIN.

absence of good data (including meta-analysis) about "what works" has created a vicious circle for those advocating for increased priority and investment for communication.

In 2011–2012, building on earlier efforts, a small group of communication implementing partners (national malaria control programs, donors, the RBM Partnership Secretariat, UNICEF, the Global Fund to Fight AIDS, Tuberculosis, and Malaria, the President's Malaria Initiative, and other technical agencies) engaged in a series of meetings, online discussions, and conference calls to review the current state of communication and begin the development of a *Strategic Framework for Malaria Communication at the Country Level*. Participants laid out the following goal and objectives for the *Strategic Framework*:

Goal

Communities are empowered to remove the threat of malaria to human health. To achieve this vision, global malaria policy makers, NMCPs, and partners ensure communication is a funded, core component of any malaria control strategy and that communication is effectively planned, implemented, evaluated, and revised based on evidence and best practices.

Objectives

Over the next five years, international and national partners will advocate for and provide the resources, training, and expertise to ensure the following:

- NMCPs in 80% of high-burden countries have developed and implemented evidence-based, national communication strategies
- 80% of high-burden countries are routinely allocating resources in their malaria control budgets to communication interventions
- RBM communication partners regularly generate and disseminate evidence of communication impact, including for priorities outlined in an agreed-on global communication research agenda
- Within one year, the RBM Partnership has established a community of practice and database that maps partners in the majority of high-burden countries in order to facilitate partner collaboration

Achievement of these goals will contribute to a reduction in the intolerable burden of malaria morbidity and mortality in these countries.

The Role of Communication in Achieving Malaria Control Impact and Principles of Effective Programs

Communication as a Vital Tool in Malaria Programs

Well-planned and executed communication programs can contribute to achieving malaria prevention and treatment goals in a wide range of ways. The focus of contributions will vary depending on the nature of challenges presented by specific interventions, for specific populations, within specific contexts. The first step in communication planning is to analyze and select these priority challenges. As mentioned in the previous section, these are constantly evolving due to various factors. As programs advance, the human/social challenges also continue to shift.

A number of typical ways in which communication can contribute to malaria programs at different times and to varying degrees are delineated in the box on the next page. These contributions can be seen as underlying changes in critical groups that are planned to lead ultimately to the last set of bullets: improvements in specific prevention and treatment behaviors. These outcomes in turn have an impact on malaria morbidity and mortality. Behavior maintenance *over time* (rather than one-time trial or intermittent practice) by all priority groups is the overarching goal, so that perceptions of "what others are doing" and "what is the right thing to do" eventually become powerful motivations in themselves. Effective communication strategies also contribute to these shifts in social norms.

Common Terms and Concepts

Communication

This document uses *communication* as an overarching term to describe a planned process for influencing actions or responses among specific groups of people. Health communication as it has evolved as a field is distinguished from pure

Mothers in Senegal show vouchers for LLINs that they are preparing to redeem at a mass distribution.

Illustrative Ways Communication Can Contribute to Program Effectiveness

Facilitate adoption of new policies:

- elimination of taxes and tariffs on anti-malarials in order to reduce the costs of products
- introduction of more effective drugs for case management and IPTp
- improving access to effective drugs through community-based providers
- ensuring environmentally sound approaches to malaria prevention and related products

Build awareness:

- of malaria as a dangerous disease
- of the danger of infection during pregnancy
- of available prevention and treatment products/ services and service providers

Change perceptions/beliefs:

- malaria is preventable and treatable
- convulsions are a sign of severe malaria rather than witchcraft or mental illness

Increase knowledge:

- malaria is caused by a night-biting mosquito
- ITNs can kill mosquitoes
- fever must be treated (or tested via RDT) within 24 hours
- the full dose of an anti-malarial should be taken in order to be effective
- a minimum of two doses of IPTp during pregnancy protects both baby and mother

Increase demand for products and services:

- purchase ITN or exchange voucher, according to local delivery channels
- attend ANC early in pregnancy and return for additional visits
- seek care for malaria symptoms from appropriate providers

Improve acceptance and trust within the family and the community:

- acceptance of IRS spray persons into the home
- acceptance of net hangers/demonstrators into the home
- acceptance of community-based providers

Improve prescription practices and effectiveness of counseling:

- correct prescriptions given by health providers, private drug sellers, community-based providers
- helpful counseling on drug dosage and duration of treatment and what to do if treatment fails
- correct referral practices

Improve motivation of families, communities, and providers:

- providers and clients/caregivers are mutually respectful

Reduce barriers:

- family decision makers support early treatment of childhood fever and pregnant women in going to ANC
- community members provide transport for dangerously ill children

Manage unforeseen events:

- dispel rumors about products
- convey information quickly when an intervention is delayed

INCREASE APPROPRIATE UTILIZATION OF PRODUCTS/SERVICES:

- caregivers seek treatment for child's fever within 24 hours
- caregivers accept RDT use and adhere to correct treatment instructions for ACTs
- pregnant women and children under five sleep under an ITN each night
- pregnant women obtain a minimum of two doses of IPTp (the first dose right after quickening)
- families accept IRS spray persons into the home and don't wash or replaster walls

These different categories can be seen as supportive changes needed to varying degrees in different contexts, ultimately leading to the last set of bullets: improved prevention and treatment behaviors.

information exchange by: 1) the setting of explicit, measureable objectives, and 2) articulation of a theory and pathway through which those objectives can be achieved.[3]

As the field has grown, practitioners have used different terms to describe such a process toward achieving desired changes. This accounts for the variations in terminology used over time in donor guidelines and country plans. Information, education and communication **(IEC)** is broadly defined as providing knowledge to help individuals, families, groups, organizations, and communities play active roles in improving and protecting their health. Behavior change communication **(BCC)** methodologies emphasize analysis of behaviors and their determinants (or underlying causes) as the basis for science-based approaches for message and strategy design. This term evolved into **SBCC** (or *social* and behavior change communication) to highlight the ultimate goal of sustained change throughout a community or society due to a shift in accepted norms—including factors that may underlie multiple behaviors (as is the case with gender norms). Advocacy, Communication, and Social Mobilization **(ACSM)** are seen as complementary approaches in a model developed by UNICEF. Communication for Development **(C4D)** emphasizes the use of *dialogue and participation* as part of planned processes to affect behavior and social change. **Socio-ecological** models of change have been put forward to emphasize the interrelationships between changes at different levels of a system and given culture.

A community worker in Senegal explains how a net can be hung in different ways.

[3] See Obregon and Waisbord (2012) and NIH and CDC (2004) for additional discussions of the definition of health communication and social and behavior change communication.

These various approaches represent an evolution in thinking about the need to engage individuals and communities in the process of understanding problems and defining locally-appropriate solutions.

The state of the art has advanced because of discussions about these different models. However, the differences in terminology are not as important as what these models have in common. Too often communication activities still fail to meet the basic requirements of effective programs: i.e., measureable objectives and logically articulated paths for achieving them.

Principles of Effective Communication Programs

Effective communication programs are characterized by a number of best practices. Four are outlined below.

Principle 1: Effective Communication is a Systematic and Evidence-based Process

Effective communication programs are described as *evidence-based* because they build on research with the target audience. Data are collected at various points to ensure approaches are unfolding as planned and objectives are met.[4]

Research about target audiences is conducted:

1. In the **formative** or developmental stage of an intervention (using various qualitative methods to understand beliefs, preferences, constraints, motivations, and current behaviors)
2. To **pretest** concepts and materials
3. After program launch and throughout the program to **monitor** processes
4. To **evaluate impact** and analyze the reasons strategies have succeeded or failed (through quantitative methods such as knowledge, attitude and practice surveys, mystery client surveys, etc.), as well as qualitative methods

[4] Communication practitioners use the term "evidence-based" to indicate strategies are based on quantitative and qualitative research at designated points in a program. However, "evidence-based" is also used in this document in the more familiar (or clinical) way to mean a specific intervention has been proved to be effective under specific conditions.

FIGURE 1: Systematic and Iterative Communication Planning Process

NOTE: This figure is an adaptation of several commonly-used planning graphics representing similar iterative approaches created by the NIH and CDC (*communication planning model*), the FHI 360/USAID C-Change project (*C-Planning*), JHU/CCP (*P Process*), UNICEF (*ACADA model*) and others. See also resources in the Annex of this document.

The program process is described as "iterative" because adjustments are made throughout the program. A "summative evaluation" measuring behavioral outcomes against baseline indicators also serves as the basis for revising strategies and launching a subsequent program stage. (See figure.)

Principle 2: Effective Communication is Theory-based

Effective communication programs are based on explicit theories of how change will occur. In other words, they propose some logical process of cause and effect. This process does not have to be a complicated one. But many communication activities amount to pure advertising or promotion without any examination of why an audience is not yet performing certain "ideal behaviors" and what might influence them to change.

There are many common theories of social and behavior change. All involve research to look at the *determinants* of behavior—or factors that either constrain or facilitate change. Some of these may be "internal factors" (such as beliefs, attitudes, skills, or a sense that one is able to change—i.e., "self efficacy"). Some may be "external" to the individual (such as distance to services, need for approval by a mother- in-law or husband, quality of care, trust in providers, or relevant policies).

Effective communication requires good relations between the health system and the community (Senegal).

Analyzing these determinants helps planners focus on a few *key factors* that they decide are central to people's willingness or ability to change. (Middlestadt et al. 2003)

Principle 3: Effective Communication is System-based

Effective communication programs are based on analysis of the context in which change takes place. This means first the health system. Family decisions about prevention and treatment are potentially affected by actions of community volunteers, public and private providers, aspects of the health system structure itself, and health policies. Efforts usually need to be targeted at several levels.

Effective programs also look at the need for *improving relationships* across different levels of the system. Lack of trust in health providers, a breakdown in referral systems, a disconnect between the public health system and traditional healers or unlicensed drug dealers who are valued by communities, are typical barriers.

Change may also require looking at economic and social systems (resource and time constraints, family decision making, gender norms, religious beliefs), legislative issues (such as taxes and tariffs on anti-malarial commodities), and influences across sectors (especially education and agriculture).

DEVELOPING A THEORY-BASED STRATEGY

An effective communication strategy is based on a proposed theory or "logic model" of how targeted changes in individual behavior will be achieved. In particular, messages are designed to "move" audiences from an existing state of awareness, belief, or motivation to a state more likely to result in the program's desired actions.

From 2007–2012, the PMI-funded COMMIT project in Tanzania aimed to improve both prevention and treatment practices using a multi-level strategy of community outreach activities conducted by community change agents, mid-media campaigns (road shows and mobile video units), and mass media.

Messages focused on the dangers of malaria and specific actions that could be taken to prevent and treat it. They aimed to increase individuals' self-efficacy to take preventive actions such as consistently sleeping under a LLIN, or getting to a clinic when recognizing symptoms, etc. Using a multi-level strategy helped to ensure that the messages reached the intended audiences in a number of ways.

Initial results from an evaluation in 2009 showed that individuals who recalled messages on malaria from road shows and mobile video units were more likely to have higher levels of "perceived threat" from malaria as well as higher levels of "self-efficacy" regarding their ability to prevent this threat, and that these individuals were also more likely to have all their children under five sleeping under a net.

A 2010 Omnibus survey (n=2000) indicated that 72% of respondents heard a malaria message on the radio. When asked if they took any actions due to the messages, 44% reported making sure his/her family sleeps under an LLIN every night.

Sources: Hannah Koenker, personal communication, April 2012; Tanzania Omnibus Survey, October 2010.

Effective communication programs look at whole systems because causes are interrelated and must be viewed in a holistic manner for change to be sustained over time.

Principle 4: Effective Communication Utilizes Appropriate Approaches

In effective communication programs, decisions about audiences and behaviors influence the types of communication approaches that will be appropriate. Multiple approaches are usually necessary to reach different audiences and create change at several levels in order to achieve a specific outcome. Among the most common approaches used to reach public health objectives are the following:

- **Advocacy** activities make the case for specific causes. Causes may include changes in malaria-related policies (requiring actions by high level officials or groups), improvements in funding, or increased priority and political will to launch new programs or support them within given communities. Audiences may range from national officials to professional societies, religious organizations, and local leaders. Common tactics include engaging the media, working directly through organizational hierarchies to create champions, and strategic one-on-one discussions with policy makers.

Local leaders review materials on malaria created for Burmese migrant worker communities in the Mekong.

IMPROVING SYSTEM OUTREACH & MOBILIZATION

Within the formal health system, ANC is the standard "platform" for delivering preventive malaria services and products to pregnant women. At the same time, in every country there are women who do not attend ANC because of distance or other barriers.

Senegal has made a concerted effort to involve communities in malaria prevention and control, and community health workers (CHWs) are playing a strong role in communication and behavior change. A consortium of NGOs helps bring a basic package of services to rural populations in 65 health districts via "health huts" run by volunteers — including a CHW, birth attendant, and outreach worker. CHWs conduct group discussions and home visits to ensure nightly usage of LLINS, promote ANC and IPTp, and encourage early care-seeking for signs of malaria. They also mobilize the community for monthly or bi-monthly outreach activities during which the chief nurse visits and provides ANC services, including IPTp.

In addition, since 2009, an initiative involving the "neighborhood godmother" (or Badjenou Gokh) has been launched in every village. The volunteer godmothers receive two days of training and are equipped with portable phones, brochures, and flip charts so they can hold meetings to sensitize village women and their families about health services (including malaria prevention and control).

These strategies have all contributed to improvements from 2005 to 2010 in the proportion of pregnant women in Senegal who have benefitted from the protection of both IPTp and LLINs.

Source: Sethi et al. 2011.

- **Behavior change communication** activities are aimed at bringing about changes in knowledge, attitudes, and practices among specific audiences as well as changes in social norms. Goals may include changes in prescription practices of private providers, compliance with treatment regimens by caregivers of children with fever, or husbands' support for women to get the second dose of IPTp. Tactics may involve multiple communication channels and tools.

- **Community and social mobilization** engage networks of people and aim to raise awareness of a problem and the need for local solutions. They can also raise awareness of a program, product, or service; create wider discussion and participation in an action plan or program; and promote collective action. Mobilization strategies (such as community dialogues, high visibility activities and celebrations) can engage members to participate in specific activities (such as LLIN distribution campaigns or household IRS visits) and also generate more lasting support for programs. Community mobilization approaches gain power through "horizontal" communication among those who share connections and can also increase a sense of *group* efficacy.

- **Social marketing** is often associated with the promotion of a subsidized and branded health product—such as an LLIN that may be acquired at an antenatal clinic. However, social marketing also provides a useful *framework* for looking at the concept of *exchange* from a consumer's perspective. The "marketing mix" is often referred to as the "four P's" of product, price, place, and promotion. All of these factors must be acceptable to a consumer before she/he will "purchase" a product—or alternately, adopt a new health practice. Social marketing also emphasizes the importance of *positioning* a product or service in line with consumers' own values so that they will choose it over some competing products or behaviors.

Rooftop sign at a private health clinic in Uganda promotes ITN use.

Strategic Framework for Advancing the Contribution and Quality of Communication

This section describes several complementary processes that will contribute to the improved status of effective communication within malaria control programs; ensure that communication becomes an integral element of prevention and treatment efforts; increase the overall effectiveness of communication programs; and contribute to the building of an essential evidence base and sharing of best practices.

These complementary processes are the following:

- Ensure political commitment
- Improve capacity and coordination at the country level
- Build a community of practice in communication for malaria
- Incorporate systematic communication in country malaria programs
- Improve the evidence base through an operational research agenda
- Establish an RBM Communication Working Group

Ensure Political Commitment for Communication

Strong advocacy is needed at the country level to ensure malaria control programs include systematic communication. As always, *ownership and sustainability* are critical. Communication programs should be country-led and ensure harmonization of strategies and messages across donor and partner efforts.

The RBM Partnership will encourage donors and organizations working in country programs to provide funding, capacity building, training, and/or technical assistance for communication programs. A standard formula for calculating the funding needed for communication (e.g., cost per household, standard formative and summative research activities) is required so that future budgets can be properly

The African Leaders Malaria Alliance (ALMA) sign an agreement to work with a program funded by the Bill and Melinda Gates Foundation to reduce taxes and tariffs on anti-malarial commodities. (L to R): George Ingram—President and CEO of AED, acquired by FHI 360; Ambassador Ombeni Sefue—Tanzania's representative to the UN; Raymond Chambers—UN special envoy for malaria; Joy Phumaphi—ALMA's Executive Secretary.

estimated. The RBM Partnership will also encourage malaria-endemic countries to increase attention and resources to malaria communication programs (Global Malaria Action Plan).

Improve Capacity and Coordination at Country Level

Challenges

Most high-burden countries now have well-established plans for malaria control and/or are working to improve their plans. Rarely are these complemented by technically sound and fully documented communication strategies. Communication working groups to coordinate strategy development are also rare. Within countries there is currently high demand for technical assistance to carry out planning processes, write proposals for communication research, conduct training, develop appropriate communication materials, and design M&E systems. Communication activities in support of malaria prevention and treatment generally fall to Ministry of Health (MOH) communication or health promotion units that are understaffed and overburdened with responsibilities for a wide range of public health priorities.

Resources are needed to recruit more dedicated and appropriately trained communication personnel into NMCPs and allied programs. Staff must be qualified to plan, lead, implement, and evaluate complex, large-scale communication interventions that are effectively integrated within the overall health system.

Management of Communication Programs

Recommendations for improving management of malaria communication activities include:

- All high- and medium-burden countries appoint a national malaria communication coordinator possessing:
  - strong understanding of communication theory and practice
  - solid management skills relevant to scaling up communication interventions
  - capability to engage and train subordinate staff and to contribute to the design and implementation of communication interventions
  - skills necessary to organize a communication working group of diverse partners for the purpose of coordinating action and leveraging resources
- All endemic countries establish a standing National Communication Working Group to coordinate communication efforts, develop national communication strategies, and leverage resources
- All endemic countries carry out a communication needs assessment as the basis for developing a national five-year communication strategy in partnership with other stakeholders
- All endemic countries produce annual communication work plans supported by appropriate and adequately protected budget allocations
- All endemic countries monitor and document results of communication programs

Technical Assistance for Improved Capacity

Communication capacity building is not a one-time event or a short-term process. Lack of capacity and funding is a function of the low status of communication within most ministries of health—which reduces impact across a range of interventions. Well-funded donor programs are often guilty of creating vertical communication programs that cannot be sustained over time, fail to improve basic health system structures, and undermine rather than promote the development of more integrated communication efforts and capacities.

Malaria communication programs must have a strong link with antenatal services. (Tanzania)

ASSESSING SYSTEMS AND STRUCTURES

In 2005, the Ghana Health Service (GHS) requested an external assessment of its systems and structures for conducting health communication, advocacy, and public relations. After a plethora of donor-funded communication campaigns and short-term capacity building efforts, the GHS was interested in a longer-term view of how quality communication could be more effectively institutionalized. The assessment made recommendations in several areas:

Improve coordination mechanisms: Provide training for high-level health program managers (not only those in the Health Promotion Unit, or HPU); establish a high-level body for health communication to promote new policies and procedures; ensure participation of multi-sectoral partners.

Improve planning mechanisms: Introduce guidelines to improve joint planning of communication activities; require annual workplans; revise mandate of the HPU to emphasize management and coordination functions and de-emphasize non-results oriented media activities.

Strengthen coordination of activities with the regions and districts: Establish a regional working group and mechanisms to ensure greater sharing between Center and the regions and regions and the districts; provide simple tools to guide effective but streamlined communication programs; increase material support and technical assistance to the regions.

Ensure greater ownership of relevant budgets by the HPU: Provide guidelines on minimum budgets for communication strategies; require sign-off on communication budgets in the early planning stages.

Increase/support staff: Appoint additional staff including a regional coordinator to improve links with the regions and districts; advocate for appropriate promotions and create appropriate incentives; over the long-term, provide for a professionally trained health promoter in each district.

Sources: Seidel and Kelly 2005.

Strategies to improve malaria communication should focus on country ownership and sustainability, and use the current high profile of malaria to raise attention to the need for appropriate competencies, positions, and procedures within the Ministry of Health (MOH) at the national, regional, and district levels. This process is best understood as one of *institutionalizing* communication within the systems and structures of the MOH—including those of greatest importance to decentralization.

Experience in health communication suggests that capacity-building efforts are more likely to be effective when one or more of the following elements are included as part of a long-term technical assistance package:

- **Mentoring:** one-on-one relationships between communication specialists and in-country malaria communication staff
- **Training:** well-organized opportunities for participants to acquire the necessary understanding and skills on a regular or repeating basis
- **Networking:** connecting in-country malaria staff to professional networks and working groups
- **Consulting and support:** provision of technical assistance from a distance, including transfer of knowledge, provision of feedback and advice, and assistance in accessing information that might otherwise be difficult to obtain

Distance learning and self-paced, web-based communication programs are also useful. Those already available include USAID's Global Learning short courses[5] and the USAID/C-Change project online C-Modules hosted by Ohio University.[6]

Some countries have approached the longer-term goal of building national capacity in public health communication by establishing country-level or

[5] Available at: http://www.globalhealthlearning.org/login.cfm
[6] Available at: http://www.ouwb.ohiou.edu/c-change/

regional-level centers specializing in communication outside of the MOH. With donor funding, Johns Hopkins University has created such centers in Nigeria, Uganda, and Zambia. The USAID-funded C-Change project has also supported development of a center for excellence at the University of Witwatersrand in South Africa. Other strategies have focused on creating distributed capacity by strengthening networks of local organizations and improving the capacity of ministry staff to manage contracts and coordinate the contributions of experienced NGOs and private sector firms. (The Annex includes a number of helpful capacity building references.)

Provide Support at the Global and Regional Levels

Increased coordination at the global and regional levels is essential for raising the overall status of communication within malaria control programming at the country level as well as supporting the quality of plans and activities. Communication expertise should be included in RBM technical working groups, country monitoring missions, and other technical fora where communication professionals can contribute to the strengthening of technical capacity.

Build a Community of Practice in Malaria Communication

The relatively early state of global learning about malaria communication makes sharing of experience particularly urgent. A critical strategy for strengthening national and subnational communication capacity is the documenting and discussion, both within and across countries, of both formative and summative research results. Large international technical organizations generally have processes for capturing and disseminating such information. However, a wealth of knowledge is generated within affected countries and much of this is not shared beyond immediate borders or among a handful of practitioners.

The documenting and publishing of best practices—approaches that have resulted in significant measurable changes in targeted behaviors within specific contexts and through explicitly articulated routes—is a high priority in order to build an evidence base. At the same time, discussion of what has been tried under less than controlled conditions—or even what has been tried, measured, and has failed—can also be extremely valuable to practitioners.

The purpose of a community of practice is to bring together those with a common interest in the voluntary and open sharing of knowledge. The opportunity for self-selection into such a group and so-called horizontal communication mechanisms are especially congenial to this kind of sharing. Casting the net wide and encouraging participation by country practitioners in particular (and employing channels appropriate for them) is a priority.

A community of practice would allow for better partner coordination and help avoid wasteful duplication of certain efforts. A major focus of such a community of practice should be the development of an operational research agenda and broad discussion of results. (This is discussed further under the section on a Global Communication Research Agenda.)

In addition, formal dissemination processes and tools are crucial to make knowledge and expertise available to NMCPs and other country-level malaria efforts. These must allow the easy access and sharing on a regular basis of guidelines and best practices on communication for malaria control.

Illustrative channels for sharing include face-to-face meetings, virtual meetings (webinars and video conferences), electronic dissemination (listservs and blogs), and establishment of repositories/databases. Various electronic knowledge exchange mechanisms on malaria and other health communication areas are already functioning. These include the Communication Initiative[7], the PMI Special Collection Repository[8], UNICEF[9], Health Communication Exchange, C-HUB[10] and HDNet.

A first step in building a community of practice should be an assessment of knowledge sharing processes that currently exist. This should be followed by recommendations for additional support to promote channels and activities that are already functioning and valuable, as well as consideration of new opportunities.

[7] www.comminit.com,
[8] http://www.c-hubonline.org/collections/pmi.html,
[9] www.unicef.org,
[10] http://www.c-hubonline.org/

Incorporate Systematic Communication in Country Malaria Programs

Effective malaria communication programs are designed based on principles already described in the section on Terms and Concepts. In addition, interventions should be designed according to a systematic process that includes a number of core elements. These are described below. While this process is basically an iterative one, the first four elements described below are highly synergistic and may overlap or take place in an order different from what is laid out here.

(This section is not meant to provide detailed guidelines on how to plan and carry out a communication program. The Annex suggests a number of resources created for this purpose.)

Leveraging Partners, Existing Resources/Strengths

Building relationships with partners, allies, stakeholders, and gatekeepers is critical to all components of a malaria communication intervention. This process should be the first step and should continue throughout the program, mobilizing many levels of society. The team should include staff from relevant MOH units (communication, NMCP, child health and reproductive health), donors and representatives from ongoing programs and involved NGOs, and representatives from the national media and the private sector. Working with partners will ensure needed ownership of the program, harmonization of messages conveyed by different groups, and coordination during implementation; will assist in leveraging resources; and will further advocacy goals of the overall malaria program. Working with other health units beginning in the planning stage is especially important in order to integrate strategies into the basic structures of the health system rather than create stand-alone campaigns.

School children review information with their teacher about malaria prevention in Tanzania.

THE PLANNING/ PARTNERING BOND

In Tanzania the COMMIT project worked in partnership with the National Malaria Control Program and multiple stakeholders to develop the National Malaria Communication Strategy that accompanied the Malaria Mid Term Strategy for 2008-2013. The Strategy has served as an effective guide for disseminating harmonized messages by a number of malaria partners and other ministry departments. The process of writing the plan was itself a partnership-building exercise that fostered respect and opened lines of communication among the partners.

In Western and Nyanza Provinces of Kenya, USAID's C-Change project provided technical support to three non-governmental organizations (Merlin, PATH, and World Vision) to assist them in planning community-level activities aligned with the Kenyan National ACSM Malaria Strategy. The team collaborated in organizing complementary approaches at the community in adjacent geographical areas and coordinated at the field level.

An independent evaluation in 2010 indicated that the NGO interventions led to an average increase of 25-35% in three target behaviors (appropriate use of LLINs, IPTp services and treatment-seeking for children) in the intervention areas.

Sources: Robert Ainslie, personal communication, April 2012; G.A. Pirio, 2010; Thaddeus Pennas, personal communication, April 2012

Situational Assessment—Health Problem, Policies, Target Groups, Research

A situational assessment describes the overall context of the communication program. It states the health problem/s in behavioral terms (e.g., current usage by vulnerable target groups). It outlines relevant policies and potential areas for discussion (e.g., role of CHWs in distributing anti-malarials, products available in the private sector and commodity regulations). It identifies major partners and current malaria communication and social mobilization programs already underway in the country. A major purpose of the situational assessment is to map out existing research on target audiences and common barriers to desired prevention and treatment behaviors. The assessment should propose additional formative/developmental research to fill important gaps in existing studies and outline a timeline and roles for managing this research. It should also identify potential sources of baseline knowledge, attitudes, and practice (KAP) data and propose additional quantitative surveys if necessary so that progress can be measured. Partner contributions will be crucial to this assessment; joint analysis of the information will help launch a team approach to problem consideration and coordination.

National Communication Strategy

The national communication strategy document provides a broad framework for activities. Annual workplans provide details and budgets for rolling these out. The national strategy document serves as a reference to ensure activities are objective-driven, messages are consistent and harmonized across partners, approaches target priority audiences and aim to influence key factors (or determinants) identified by research.

The strategy should outline approaches for affecting multiple levels of the system: caregivers/clients and communities, health providers, institutions, and policy makers. It should include all of the elements described in the sub-heads below. In addition, it should include a plan for documenting and disseminating best practices following summative evaluations. It may also recommend specific actions for strengthening health communication capacity (e.g., at the national or district level) within the larger health system.

FORMATIVE RESEARCH FOR A NEW INTERVENTION

In Uganda, formative research was conducted in 2008 in Iganga district to help anticipate challenges connected with introducing RDTs by community medicine distributors (CMDs). The study included focus group discussions with CMDs and both mothers and fathers of young children, and key informant interviews with health workers and community leaders. Four key findings emerged:

- CMDs are trusted by their communities because of their commitment to voluntarism, accessibility, and the perceived effectiveness of the anti-malarial drugs offered
- Community members, health workers, and CMDs welcomed the use of RDTs by CMDs provided they have sufficient education, are trained in their use, and are supported to follow up with children
- Fears were expressed that CMDs who collect blood using RDTs could expose children to HIV, that the tests could be used to test children for HIV, or that the blood could be used for witchcraft
- CMDs were anticipated to face challenges with transport for follow up of patients and restocking supplies, adults demanding to be tested, and caregivers insisting their children be treated instead of referred

The study provided information for designing a communication strategy to address community fears and stigma about drawing blood, as well as to plan training for the CMDs.

Source: Mukanga et al. 2010.

The process of creating the plan, like the situational assessment process, should help cement relations among partners. As audiences and strategies for reaching them are discussed, the importance of additional partners may also become clear (e.g., those in other sectors such as education).

Communication Objectives and Key Actions

During the assessment, prevention and treatment targets are analyzed and prioritized according to prevalence, geographic and demographic factors, and in the context of health service delivery structures. The national strategy sets measureable program objectives for progress in priority interventions. Targets must be **S**pecific, **M**easurable, **A**ttainable, **R**elevant, and **T**ime-bound. They may focus on utilization rates as well as desired policy changes. For example:

By 2017, appropriate use of LLINs by all pregnant women in rural areas will increase from X to Y%

By 2017, the proportion of women attending any ANC who receive two doses of ITPp will increase from X TO Y%

By 2017, the Ministry of Trade will remove taxes and tariffs on imported LLINs

Each objective is then broken down into a list of communication objectives linked to actions by specific audiences. These actions describe the pathway through which the targets will be achieved and highlight needs/gaps in current behaviors (rather than actions the vast majority of people are already taking). Key actions are always specific to a given context and culture. For example, to improve IPTp utilization, a program may have to address actions by husbands in support of wives attending multiple ANC visits and actions by providers to prioritize SP doses for pregnant women. Formative research uncovers which changes in the current status quo are necessary to make a difference. (The box on the next two pages outlines illustrative actions and audiences for different objectives, or "ideal behaviors.")

Many people consult with private providers and shop keepers about how to prevent and treat malaria. (Uganda)

Audience Segmentation and Approaches for Reaching Them

Audience segmentation goes hand-in-hand with the setting of objectives. Malaria control programs focus on populations most at risk, including those in specific regional, socioeconomic, and biological groups (such as pregnant women). In addition, the communication strategy identifies the *primary target audiences* (those who will perform the key health practices) and *secondary audiences* (those who influence the primary audiences). Secondary

THE PRESCRIBER-CLIENT RELATIONSHIP

An estimated 40 to 50% of all anti-malarial drugs are distributed through the informal private sector. In recent years several countries have focused on improving prescription and counseling practices of private providers.

A program in Kilifi District, Kenya, in collaboration with the Kenya Medical Research Institute-Wellcome Trust Research Programme, used multiple strategies to change the behaviors of providers and also increase community support for their advice.

Community participation was solicited in identifying highly-trafficked, stable, and popular retail shops. Shopkeepers received four days of training focusing on appropriate prescribing practices (including introduction of SP as the new first-line treatment at the time) and counseling. They received certificates and logos to identify their shops as "trained outlets."

Public information activities aimed to identify the trained retailers, promote early treatment of childhood fever, and explain the change in drug policy. Channels included women's groups, parent teacher associations, and celebrations with local dance and drama groups.

Pre and post surveys with mystery clients showed that overall the proportion of shop-treated childhood fevers receiving an adequate dose of a recommended anti-malaria drug within 24 hours rose from 1 to 28% between 1999 and 2001.

Sources: Marsh et al., 2004; Foster 1991; RBM 2011.

Illustrative Audiences (Actors), Actions, and Their Constituent "Parts"

Appropriate Use of ITNS/LLINS by Pregnant Women, Children Under Five, and Others

Actors: Policy makers

- Ensure removal of taxes and tariffs
- Support a coordinated LLIN strategy
- Support universal coverage
- Support appropriate environmental protections (e.g., disposal of LLINs)

Actors: Family decision makers (heads of households, mothers-in-law) and vulnerable groups

- Acquire LLINs (attend distribution venue, acquire and use voucher if appropriate)
- Hang LLINs correctly and at sundown
- Vulnerable groups have priority for use (pregnant women, children under five)
- Sleep under LLINs every night
- Take proper care of LLINs

Actors: Health service providers and community volunteers, distributors (vendors)

- Promote LLINs at every opportunity (ANC visits, child visits, etc.)
- Counsel on how/when/who should use LLIN
- Distribute and explain vouchers as needed and provide information on where to get LLINs

Actors: Community leaders, organizations

- Promote LLIN use to prevent malaria (community meetings, child health days, etc.)
- Promote hanging of nets at sundown every night
- Promote and support volunteerism

Actors: Local media

- Promote LLIN use to prevent malaria; promote hanging of nets at sundown and for every night

IRS: Delivered to Homes in Designated Areas Prior to Rainy Season

Actors: Policy makers

- Explain the rationale and implications of IRS
- Include IRS as a malaria prevention strategy for the NMCP as appropriate

Actors: Health system

- Provide advance information about visits by spray persons so community can be alerted/prepared

Actors: Community leaders, organizations

- Facilitate planning with health system, link with community (e.g., via group discussions)
- Alert communities to planned visits by sprayers and provide information about how to prepare
- Respond to concerns, provide feedback to health system

Actors: Local media

- Provide accurate information about IRS
- Alert communities about scheduled spraying
- Link with health system to clarify and correct rumors

Adapted from *PMI Communication and Social Mobilization Guidelines* http://www.pmi.gov/resources/publications/communication_social_mobilization_guidelines.pdf (accessed June 6, 2012) and Seidel, R. *Behavior Change Perspectives and Communication Guidelines on Six Child Survival Interventions* (AED/JHU-CCP/UNICEF) 2005.

IPTp: At Least Two Doses Received by All Pregnant Women Beginning After Quickening

Actors: Policy makers

- Appreciate and be able to explain the dangers of malaria during pregnancy
- Enforce the national IPTp policy

Actors: Pregnant women

- Attend ANC early and at least twice according to national policy
- Demand and accept a minimum of two doses of IPTp following quickening

Actors: Family decision makers (heads of households, mothers-in-law)

- Support women in attending ANC early and at least twice according to national policy
- Support women in receiving a minimum of two doses of IPTp

Actors: Health service providers and community health workers/volunteers

- Provide correct SP dose to healthy pregnant women at correct times
- Do not give SP to other clients (according to national policy)
- Explain purpose of SP and potential side-effects
- Encourage early and frequent ANC attendance; give appointments for next visits

Actors: Community leaders, organizations

- Encourage early and frequent ANC visits
- Support IPTp for pregnant women to protect mother and baby

Actors: Local media

- Promote early ANC and a minimum of two doses of IPTp to protect mother and baby

Appropriate Care-seeking for Malaria and Compliance with RDTs and Drug Therapy

Actors: Policy makers

- Endorse classification of first line ACT for over-the-counter sale and distribution
- Support introduction/expansion of RDTs
- Support the establishment of a quality control system for anti-malarials
- Support home management of malaria and outreach/provision of drugs by appropriate CHWs
- Support integrated management of childhood illness at the community level

Actors: Caregivers and family decision makers (heads of households, mothers-in-law)

- Recognize signs and symptoms of malaria
- Seek treatment for children within 24 hours of on-set of fever
- Accept use of RDTs by health provider
- Acquire and give the right ACT, in the right dose, for the right number of days
- Recognize signs of severity/failure to respond to treatment; seek help from legitimate provider promptly

Actors: Health service providers and community health workers

- Ask about previous treatments (to identify treatment failures) and symptom history
- Prescribe the right ACT in the right doses
- Explain clearly how to take the medication and discuss side effects
- Recognize signs of severe disease and treat or refer, according to national policy
- Do not give SP to other clients (according to national policy)
- Explain purpose of SP and potential side-effects
- Encourage early and frequent ANC attendance; give appointments for next visits

Actors: Private medicine dispensers
(same as for health service providers, above)

Actors: Local media

- Promote use of RDTs and ACTs to treat malaria effectively and avoid drug resistance

audiences may be a central focus of communication because they are actual decision makers. *Tertiary audiences* (community groups, local leaders, those in other sectors) are also addressed if their support is critical to efforts.

Formative research provides important information for segmenting audiences. For example, user/non-user (or "doer/non-doer" analysis) may reveal that people with certain beliefs or values, belonging to certain cultural or religious groups, or having certain support systems are more or less inclined to carry out a desired behavior. First-time mothers may behave differently with respect to an intervention than those with several children, and so forth.

Analyzing the propensity of different audience segments to carry out priority behaviors and identifying the *key factors* that hinder or motivate them to take action provides the basis for designing approaches that have the best chances for producing measurable change.

Intervention Approaches/Channels, Messages, and Materials

The national communication strategy should clearly describe audience segments and social and behavioral determinants (or key factors) identified through the formative research and link these directly to *proposed communication approaches* designed to address them. This transformation of research results into creative strategies is the reason communication programs are said to require both science and art.

Producer Boubacar Sidibe films actors for a TV sketch about malaria in Bamako, Mali.

MOBILIZING SPECIAL POPULATIONS

Pastoral communities in Africa have deep-rooted traditional leadership systems. Successful communication programs must engage this leadership to mobilize local populations.

In Ethiopia, community-based malaria control was adopted in the 1990s to improve access to early diagnosis and treatment. Community health workers (CHWs) provide first-line anti-malarials and refer serious cases to the health facility. Since 2005, AMREF has supported a program in the Afar region, which is 90% pastoralists, in order to strengthen links between communities and the health system and improve both access to malaria products and services and household practices.

In addition to training CHWs, equipping health centers, and distributing ITNs, the program trained mother coordinators in each village to visit households and both educate and motivate families. AMREF developed and tested a simple, largely pictorial toolkit to support their interactions. Local leaders also received training and were involved in recruiting the mother coordinators and facilitating the door-to-door distribution of ITNs.

As a result of the combined strategies, from 2005 to 2007 the proportion of pregnant women and children under five who slept under an ITN the previous night increased from 27 to 86.5% and from 17 to 84% respectively. Treatment seeking behaviors for fever also increased. However, only 14.3% of under-five children with fever were treated within 24 hours, reflecting both access and cultural barriers.

Sources: Nigatu, et al. 2009.

Communication research should also be used to identify communication channels which provide the right combination of reach and frequency of message delivery. Different channels have different strengths, challenges, and costs, and an effective strategy uses a mix of channels that are mutually reinforcing. The strategy should also describe the key messages for different audiences and actions, as well as the materials to be designed and delivered.

Concept Testing/Pre-Testing

Intervention elements should be developed and tested directly with the audience. Concepts, messages, radio scripts, prototype communication materials, are pre-tested via standard research methods. Pre-testing helps confirm whether storylines, messages, and materials are understood, acceptable, and have the desired effect with the intended audience segment. Information is used to make adjustments. Small-scale tests of training strategies or other face-to-face interactions (e.g., with health workers, CHWs, pharmacists, or informal drug providers) should also be incorporated into planning before large-scale rollouts.

Implementation Rollout

The communication strategy should provide a framework that links all elements in a phased and coordinated way. This framework should also be explicitly integrated with supply and service elements and with relevant aspects of the health system structure itself. "Balancing supply and demand" is one of the basic principles of effective communication programs. Creation of demand for services that are inadequate or lacking undermines the health system and the credibility of future communication efforts.

Press conference with the Cameroon Ministry of Health, as part of the K.O. Palu NightWatch campaign.

COORDINATING CHANNELS — "NIGHTWATCH"

The nonprofit organizations Malaria No More and Lalela Project have designed coordinated campaigns called "NightWatch" to remind people to sleep under their mosquito nets. The primary message is a simple but powerful behavioral trigger: "It's 9 p.m. Are you and your family safe under your mosquito nets tonight?"

Campaigns were launched in Senegal (2010), Cameroon (2011), Chad (2012), and Tanzania (2012). Multiple media and cross-sector activities included:

- High quality public service announcements featuring international and local celebrities (Alexandre Song—footballer, Youssou NDour—musician, Luc Mbah a Moute—NBA, 50 Cent, etc.) These are aired on national and regional TV and radio stations at 9 p.m. (around the time the malaria-carrying mosquitoes come out)
- Nightly SMS messages sent by TIGO Senegal, Airtel Chad, and MTN Cameroon to both rural and urban mobile subscribers
- Complementary school curriculum on malaria prevention reaching students aged 12-14
- Nationally broadcast press event and concerts, which in turn receive broad media coverage

In Senegal, an evaluation (2011) showed children whose parents heard the campaign messages were 8% more likely to have slept under a life-saving bed net the night before. In Cameroon, an evaluation (2012) showed that the campaign had a statistically significant impact on net use by both adults and children, even when controlling for net ownership, level of education, urban/rural location, gender, and media use.

Sources: Malaria No More website: (http://malarianomore.org/what-we-do/nightwatch) and Senegal Impact Report, Malaria No More, 2011.

Popular Senegalese artist Youssou NDour arrives for the launch of the *Xeex Sibbiru* (Fight Malaria) concert and campaign launch.

Other elements of planned implementation rollout include strategies to manage potential problems (e.g., delays of an already-announced delivery of free LLINs). Adequate community preparation for campaign launches (e.g., engaging local leaders and local media contacts) and including media partners in the national communication working group help reduce the likelihood of rumors or negative publicity and can mitigate the fallout if something unforeseen does happen.

Careful *timing* of different elements during the rollout, as well as quick response systems to adjust strategies if necessary, are crucial during this phase.

The implementation rollout strategy should identify partners at different levels and an overall coordinating structure at the national, provincial, and district levels so that roles are clear.

Monitoring and Evaluation (M&E)

The communication strategy should describe the broad plan for monitoring and evaluating program processes, inputs, outputs, and outcomes. Since many activities are likely to be carried out by partners, the monitoring plan will have to be designed in a coordinated fashion, led by the NMCP's M&E unit. The purpose of monitoring is to make sure program processes are on track and provide opportunities to make midcourse corrections. Communication staff and the M&E unit should work together to enhance regular reporting systems if necessary with pertinent data (which may be quantitative or qualitative in nature). A summative evaluation should be planned to compare progress in targeted knowledge, attitudes, and practices (as well as other objectives such as policy changes) to baseline measures.

Monitoring of program activities involves tracking and assessing specific outputs (what activities are carried out, where, by whom, and when) previously defined for each activity to determine program progress and measure the quality of the interventions and materials. A mechanism for collecting data and reporting on specific output indicators for each activity should be developed and carried out on a regular basis during implementation. (See box below with sample tracking tool.)

Overall outcome indicators will form the basis for assessing the interim and long-term impact of the program (such as changes in knowledge, motivation, ability to act, social norms, etc.) and should be evaluated by independent research organizations.

TABLE 1: Illustrative example of M&E tracking tool for LLIN hang-up campaign*

Indicator	Data Source	Reporting Frequency	Responsible Party
Process Number of individuals trained to conduct door-to-door visits	Training records	One time; after training	Implementing partner
Output: Reach Proportion of households (HH) in target area visited by team **Num:** Number of HH in target area visited by team **Denom:** Number of HH in target area	HH visit forms — first visit Census data for target area	One time; after first visit	Implementing partner
Output: Service delivered Proportion of HH visited by team that either had a net already hanging or a net was hung by team. Number of nets hung by team at time of visit. **Num:** Number of HH in target area visited by team with net already hanging or a net was hung by team **Denom:** Number of HH in target area visited by team	HH visit forms — first visit	One time; after first visit	Implementing partner
Outcome: Recall/knowledge Proportion of HH receiving a hang-up visit that can recall the communication message at follow-up. **Num:** Number of HH visited at follow-up where someone in the HH recalls the communication message **Denom:** Number of HH visited at follow-up [Assumes HH visited at follow-up received an initial visit where someone heard the communication message]	HH visit forms — follow-up visit	One time; after follow-up visit	Implementing partner
Outcome: Attitude/intention Proportion of HH receiving a hang-up visit that report it is likely everyone in the HH will sleep under an LLIN every night (and specify children <5) **Num:** Number of HH reporting an intention for everyone in HH to sleep under an LLIN every night **Denom:** Number of HH visited – first and follow-up [Comparison of responses at first visit and follow-up visit]	HH visit forms — first visit and follow-up visit	Two times; after first visit and follow-up visit	Implementing partner
Outcome: Behavior Proportion of HH reporting everyone sleeping under an LLIN the previous night (and specify children <5) **Num:** Number of HH reporting that all HH members slept under an LLIN the previous night] **Denom:** Number of HH visited (first visit and follow-up [Comparison of responses at first visit and follow-up visit]	HH visit forms – first visit and follow-up visit	Two times; after first visit and follow-up visit	Implementing partner

* Adapted from: President's Communication Malaria Initiative Communication Team. (2012 draft) *The President's Malaria Initiative Monitoring and Evaluation Strategy for Behavior Change Communication.* PMI.

Conducting baseline, midline, and endline evaluations will allow for scientific documentation of outcomes/changes in the population due to the intervention. Once data have been collected and analyzed, reports and survey findings should be shared with key stakeholders along with recommendations on how to improve their current program activities.

Budget/Funding

Lastly, the national communication strategy should include an overall budget for the program. It should include estimates for the costs of research and evaluation; development, pre-testing, production, and distribution of materials; community mobilization; training and supervising clinical and community based providers; and coordination/management. Estimated partner contributions to the budget should also be included.

Communication budgets for many health areas are typically underfunded, and these budgets may be the first to be tapped for unrelated purposes if unexpected needs arise. The President's Malaria Initiative recommends reserving **10–15% of an overall malaria program budget** for communication activities. The Global Fund recommends that **10% of program funds** be allocated to communication. Yet another approach is to calculate a specific percent of malaria-related commodity costs and allocate that amount towards communication activities. Costs will vary according to the nature of research needed, channels appropriate to the target audiences, complexity of segmentation and reach issues, and other contextual factors. Summative evaluations to analyze the contribution of communication to results, and to understand what has worked and what has not, are particularly important but are also costly.

Table 2 on the next page provides a list of illustrative program functions and budget items managers should consider when projecting (and protecting) funds for communication.

OPERATIONAL & BEHAVIORAL RESEARCH

The GMAP emphasizes the importance of behavioral research, which is one type of operational research.

"Operational research (OR) is defined as 'the use of systematic research techniques for program decision-making to achieve a specific outcome. OR provides policy-makers and managers with evidence that they can use to improve program operations.'"

"Behavioral research will be necessary to help ensure preparedness for implementation of strategies, particularly surrounding those of new interventions and approaches."

— Global Malaria Action Plan

Global Communication Research Agenda

Resources continue to flow into research and development for more effective treatment, protective LLINs, vaccines, and other biomedical and environmental interventions. However, few resources are available to conduct operational research to understand the cultural/social, behavioral, communication, economic, and structural factors that affect use of such interventions by at-risk populations.

A woman in Senegal repairing a bed net: an important behavior that has not yet been well studied.

TABLE 2: Selected Cost Components for Communication*

Program Function	Budget Items
Audience research (design, data collection, analysis, reporting)	Staff time Consultants and/or subcontracts Per diem, lodging, and travel expenses Fuel, supplies
Strategy design	Staff time Consultants Per diem, lodging, and travel expenses Meeting room rent, supplies
Design and development of print materials	Staff time and consultant time (e.g., for writing, drawing, photography, design and layout, word processing, translation)
Writing and development of broadcast materials	Staff time and consultant time (managerial, creative, and technical input, translation) Cost of subcontract to advertising firm
Development of local communication channels (e.g., drama groups, mobile vans, fairs, miking, mosque announcements, etc.)	Staff time and consultant time (managerial, creative, and technical input, translation) Cost of subcontract and/or of ongoing expenses (per diem, travel, etc.) Equipment purchase or rental
Pre-testing and refinement of materials (design of protocols, data collection, analysis, reporting; refinement of materials as required)	Staff and consultant time and expenses (per diem, lodging, travel) and/or subcontract Supplies (e.g., paper, video equipment, recording)
Production and broadcast	Printing Audio and video recording and production Broadcast/air time
Distribution/dissemination of materials and orientations (account for all costs down to the recipient)	Staff and consultant time (e.g., for planning, implementing) Per diem, lodging, travel expenses Fuel Production and copying of forms for tracking
Training in communication, social mobilization, or advocacy (especially for journalists and champions)	Staff and consultant time (e.g., for planning, implementing, evaluating training) Travel, per diem and expenses of participants Rental of venues
Informing and interacting with the national and local press and with champions (pre-program launch & response to unforseen events)	Staff and consultant time (planning, implementing) Travel and per diem Preparation and printing of materials
Monitoring (design, data collection, analysis, reporting)	Staff time Consultants and/or subcontracts Per diem, lodging, and travel expenses Fuel, supplies
Mid-course program adjustments	Staff and consultant time for management, redesign
Summative evaluation (design, data collection, analysis, reporting)	Staff time Consultants and/or subcontracts Per diem, lodging, and travel expenses Fuel, supplies
Management and supervision	Staff time Travel, per diem, lodging, fuel

* Adapted from *Immunization Essentials: A Practical Field Guide* (USAID) 2003.

During the series of consultative meetings held in 2011-2012 to develop this *Strategic Framework*, representatives discussed the need for an operational research agenda to increase the effectiveness of communication interventions regarding malaria prevention, diagnosis, and treatment and to expand the evidence for scaling up.

Some research should be embedded in ongoing NMCP activities to minimize the disruption and distortion that often arise from scaling up isolated research projects.

Expected Contribution of Operational Research

Operational research (OR) for communication should aim to improve the targeting, efficiency, and effectiveness of programs in countries and regions (especially remote and rural) where these interventions are most needed.

Knowledge gained from OR should: 1) increase understanding of complex behavioral determinants and channel effectiveness in specific contexts; 2) provide a foundation for advancing the use of an evidence base in program design; and 3) help demonstrate that rigorous application of evidence in communication does contribute to improved prevention and treatment-seeking behaviors among intended audiences.

The key factors in nightly bed net use by families vary across countries and over time.

Advancing the State of Communication Research

Current challenges to bolstering the evidence base with OR include:

- Weak malaria communication/operational research capacity with limited reliable results
- Lack of consensus on priority behavioral and impact studies for malaria communication
- Scarce funding for malaria communication research and insufficient interest among non-communication-oriented partners and organizations to include communication in programs and budgets

DETERMINANTS OF ITN USE

Determinants of ITN use have varied over time and from country to country.

Research in Ghana in 2008 examined ten different variables and their association with net use the previous night. Results indicated that net use was positively associated with rural location, lower socioeconomic status (SES), knowing that mosquitoes transmit malaria, not using coils for mosquito control, having newer nets or those in good condition or light blue in color, and having paid for the net instead of having obtained it free.

The researchers suggested that net use would increase if colored nets were made available in mass distributions; if programs emphasized that malaria is caused only by night-biting mosquitoes and that nets protect against mosquitoes better than coils; if donated nets were replaced more frequently so that households have nets in good condition; and if there were support for the commercial market so that those who can afford to purchase a net and want to choose their own nets can do so more easily.

Over time, as access to nets improves and knowledge about malaria increases, factors related to net use can also be expected to change and additional studies about barriers will be needed in these same countries.

Sources: Baume and Koh, 2011

Partners agreed on two overarching priorities for action:

- Define and implement a set of operational research activities that leads to improved communication strategies and increased impact of communication on overall malaria control efforts
- Develop, expand, and support technical capacity (both nationally and internationally) to carry out high-quality malaria communication research

Strategic Direction and Priority Topics for Research

Strategic direction and specific topics for a research agenda fall into three basic categories:

Improved understanding of factors that impede or encourage the recommended behavior. Case-control (also called doer/non-doer) studies are needed to understand reasons for low performance of recommended behaviors. This may include non-acquisition of available LLINs; non- or inconsistent use of LLINs that are in the home; poor treatment compliance (both over- and under-treatment) of cases; low IPTp uptake where drugs are available, especially for the second dose; and refusal to accept insecticide spray persons in the home (especially after a first IRS experience). Such research compares those who behave in accordance with recommendations with those who don't. Key factors beyond access may include sources of knowledge, different reinforcements for correct behavior, and other issues. Differences between doers and non-doers should be studied *within* specific audience segments (urban and rural populations, central/marginalized groups) once poorly performing SES or geographic groups are identified.

As countries achieve universal coverage of interventions and knowledge in the general population improves, the relative importance of behavioral determinants can change. Positive behaviors may increase but plateau, and emphasis must shift to decreasing a range of external barriers beyond access, and motivating consistent and habitual performance of some behaviors as well as trial of new ones (e.g., overcoming constraints to hanging multiple nets in small homes, motivating willingness to repair or replace nets).

Where problems persist, behavioral studies can help investigate programmatic solutions (e.g., allowing women to take home IPT doses when health facilities have no water or cups).

As part of the *Zinduka! Malaria Haikubaliki* (Wake up! Malaria is unacceptable!) campaign, Tanzanian school children learned how to prevent malaria (shown here, how to hang an LLIN) and become catalysts for change in their communities.

Improved understanding of channel effectiveness. Effective communication programs employ multiple reinforcing communication channels to reach audiences with sufficient frequency and impact. Ad agencies, the DHS, and other standard surveys already supply information on the reach of different communication channels to specific populations. Rapidly expanding access to mobile technologies requires a nearly constant updating of basic information about how groups receive and exchange information. Beyond these basic data, operational research can examine the type of content conveyed by different channels: for example, information vs. emotion/reinforcement. Case studies about the application of new technologies (such as SMS and social media) to affect specific malaria control behaviors will be helpful. The impact of social networks and social influence are equally important, if more difficult to study. Once again, case-control (doer/non-doer) research is likely to provide the most valuable information for readjusting programs.

Pressure is sometimes put on programs to disaggregate effects by channel, or to determine which channel or activity has the power to act as a "magic bullet" for behavior change. This can lead to complex evaluation designs, with distinct populations receiving different "treatments"—which can be difficult to achieve, since many communication approaches spill over beyond the target population. An alternative is to phase in different elements of the intervention, coupled with continuous monitoring of the desired outcomes, ideally using routinely collected data. An uptick in the desired outcome associated with a specific input can be read as the added value of that input given the previous inputs. If this analysis is repeated in different locations, with the order of inputs varied, systematic review of the results may show that one or several inputs can be dropped.

Improved and appropriate research approaches and tools. Priorities include developing new methods for providing robust impact analysis, such as propensity score matching. In addition, improved methods and better use of existing methods are needed for investigating behavioral and social determinants. Illness narratives, direct observations in the home and health facility, and other approaches require only small samples but systematic and careful conduct and analysis. Case studies and rigorously tested tools should be shared—not only across organizations and countries among those working on malaria, but also with people working on other health issues.

Increased emphasis can also be placed on use of routinely collected data as the basis for evaluation, with time-series analysis linking effects with inputs. A first step would be a coordinated review of the type and quality of data collected by a country's health system. Data collection mechanisms in place are often unreliable (whether HMIS or health records); in addition, routine data may need to be supplemented by collection of qualitative information essential to communication programs.

RBM Communication Working Group

At the time of this document's printing, there was limited structure within the RBM Partnership to achieve consensus on best practices or to coordinate partners' country level communication support. In addition, communication was not mainstreamed into the work of the other RBM Working Groups.

The consultative meetings held in 2011-2012 (and building on the work of others) recommended

SUPPORT FOR THE CONCEPT OF A COMMUNICATION WORKING GROUP

In 2008, the GMAP reflected on the need for a task team or working group focused on communication:

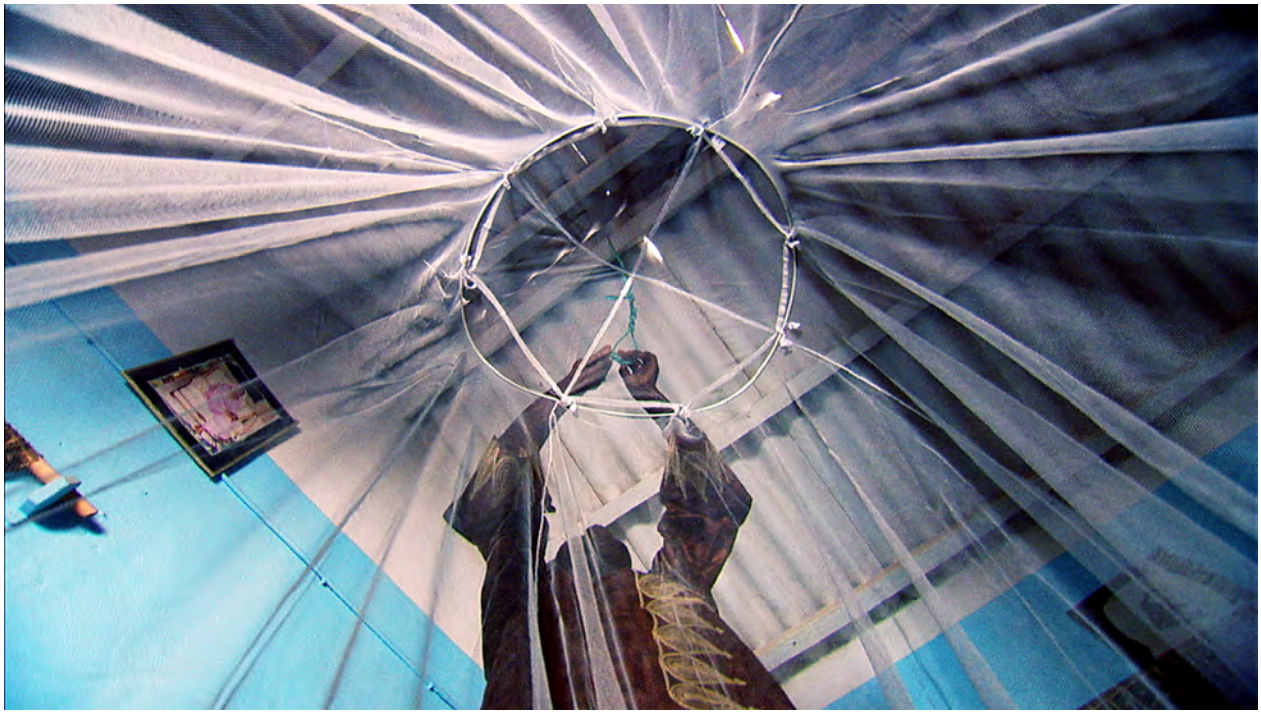
"Currently there is no structure within the RBM Partnership that coordinates partners' country level communication support . . . Following a RBM Board decision in 2007, the Malaria Advocacy Working Group (MAWG) was tasked with seeing where a revitalized focus on country level communication activities could be situated (for example, as a task team or new working group.)"

— Global Malaria Action Plan

formalization of an RBM Communication Working Group with the overall goal of ensuring that effective malaria communication strategies are implemented at scale in malaria-endemic countries in Africa. The working group will help coordinate partners and serve as a focal point for implementation of the present *Strategic Framework*. Activities will focus on guiding, developing, and documenting best practices and increasing capacity in malaria communication in malaria-endemic countries in Africa.

A specific proposal drafted in 2012 to form such a working group recommended that the key responsibilities of such a group will be to:

- Advocate for the development and implementation of evidence-based country-level communication strategies
- Advocate for more financial resources to implement malaria communication interventions
- Disseminate approaches for scaling up effective communication interventions
- Provide countries and partners with technical advice and helpful tools for the implementation of the *Strategic Framework*
- Facilitate the provision of technical assistance to countries and partners as needed to improve the quality and capacity to implement results-driven malaria communication programs
- Prioritize and direct the research agenda as detailed in the *Strategic Framework*
- Promote and encourage active sharing of experiences in order to advance the state of the art in communication for malaria control and prevention, and to promote the integration of best practices in developing, implementing, and evaluating malaria communication interventions at country level
- Advise and exchange with other relevant RBM mechanisms on matters pertaining to in-country communication
- Develop a monitoring and evaluation system to monitor progress, ensure targets are met and communication is demonstrating its value to meeting the goals and targets set out in the *Strategic Framework*



View from under a conical LLIN, which can be hung from a single point of contact.

CONCLUSION

Actions and Indicators

Global malaria policy makers, NMCPs, and partners must ensure communication is a funded, core component of any malaria control strategy and that communication is effectively planned, implemented, evaluated, and revised based on evidence and best practices. This *Strategic Framework* has outlined principles and actions towards meeting this overarching goal. Partners are urged to take the following key actions:

- Advocate for systems and programs that ensure communication is positioned appropriately within the global RBM Partnership
- Ensure all national malaria control program communication strategies are context-appropriate, evidence-based, and results-driven
- Foster capacity building in communication planning, management, and evaluation at the global, regional, national, and sub-national levels
- Invest adequate resources to ensure communication interventions achieve measurable results at the country level
- Expand the evidence base demonstrating communication intervention impact on social and behavioral change and thus contribute to the reduction of the burden of malaria

Four overall indicators are proposed for the next five-year period as appropriate measures of progress:

- NMCPs in 80% of high-burden countries have created and implemented evidence-based, national communication strategies
- 80% of high-burden countries are routinely allocating resources in their malaria control budgets to communication interventions
- RBM communication partners regularly generate and disseminate evidence of communication impact including for priorities outlined in an agreed on global communication research agenda

> Communication activities should be integrated into National Strategic Health Plans, malaria business plans, and education programs from the very beginning.
>
> **— Global Malaria Action Plan**

- Within one year, the RBM Partnership has established a community of practice and database that maps partners in the majority of high-burden countries in order to facilitate partner collaboration

Progress towards these indicators will be tracked through annual technical reviews commissioned to analyze progress in national capacity building in health communication. International, regional, and national consultations are proposed to document and disseminate good practices, lessons learned, and evidence to date. Highly experienced communication partners will participate in regular technical advisory missions, which will offer further opportunities for NMCPs to assess national and sub-national communication activities. Country-level communication initiatives will develop participatory monitoring and evaluation processes, including appropriate indicators and reporting systems, which will provide the basis for building the evidence base regarding good practices. These processes will contribute to improved understanding of how effective country-level communication contributes to malaria control.

Resources are necessary to support these actions and processes. Partners at all levels are urged to provide appropriate support to this crucial component of the global malaria control effort.

ANNEX

Communication Toolkits and Resources

This annex is a list of resources that may be helpful to communication planners and NMCP program managers. A few of these have been designed explicitly for malaria communication, but all are potentially relevant in developing, implementing, and evaluating a communication intervention for malaria control. The materials listed here are designed to provide an overview of the wealth of resources that are available.

Diagnostic and Planning Tools

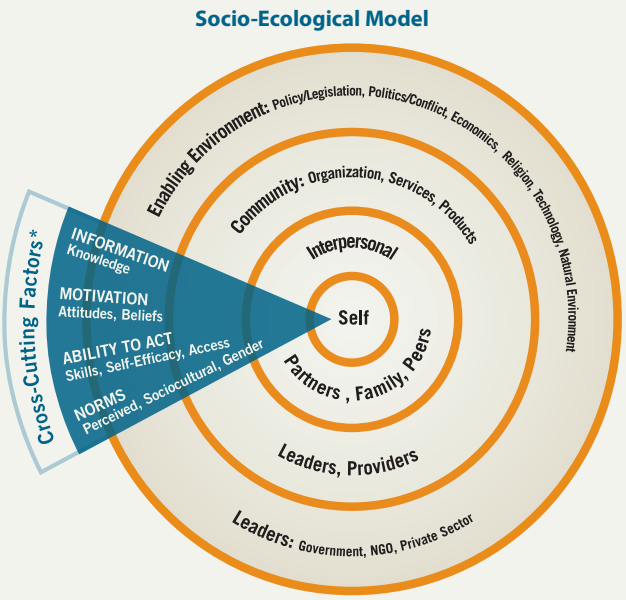
Alliance for Malaria Prevention Toolkit provides well-documented guidance, resources, and tools focusing both on campaigns and on continuous LLIN distribution systems. It describes overall campaign planning and implementation, including the importance of establishing coordination structures, procurement, logistics, communication, M&E, and reporting.
http://www.allianceformalariaprevention.com/resources/AMP%20Toolkit%202.0%20English%20FINAL.pdf

RBM Advocacy Guide is designed to help in efforts to advocate to others about the Roll Back Malaria partnership and advocate for political and financial resources.
http://www.rbm.who.int/cmc_upload/0/000/012/558/advocacy_report.pdf

An Introduction to Advocacy: Training Guide introduces the concept of advocacy and provides a framework for developing an advocacy campaign. It is designed primarily for use in training sessions but can also be used as a self-teaching device. This guide was developed by the Academy for Educational Development (now FHI 360).
http://www.globalhealthcommunication.org/tools/15

BEHAVE Framework is a tool for planners that emphasizes the need to place the audience at the center of planning and the importance of focusing on key factors, or behavioral determinants, in designing a communication program. It was developed by the Academy for Educational Development (now FHI 360).
http://www.childsurvival.com/documents/workshops/BEHAVE!/BEHAVE1.cfm

CDCynergy, a multimedia CD-ROM used for planning, managing, and evaluating public health communication programs, does not regard communication alone as the panacea to public health but places it in the larger context of issues and suggests strategic options to choose from and a comprehensive plan to implement an identified strategy. It was developed by the U.S. Centers for Disease Control.
http://www.cdc.gov/healthcommunication/CDCynergy/



*These concepts apply to all levels (people, organizations, and institutions). They were originally developed for the individual level. Source: Adapated from McKee, Manoncourt, Chin, and Carnegie (2000)

C-Modules: A Learning Package for Social and Behavior Change Communication for facilitated, face-to-face workshops on SBCC, is designed for staff of development programs in small- and medium-sized organizations with varying degrees of experience in planning or implementing SBCC programs. C-Modules were developed in 2012 and include a practitioner's handbook, a facilitator's guide, and additional resources. C-Modules contains five parts: understanding the situation; focusing and designing; creating; implementing and monitoring; and evaluating and replanning.
http://c-changeprogram.org/focus-areas/capacity-strengthening/sbcc-modules

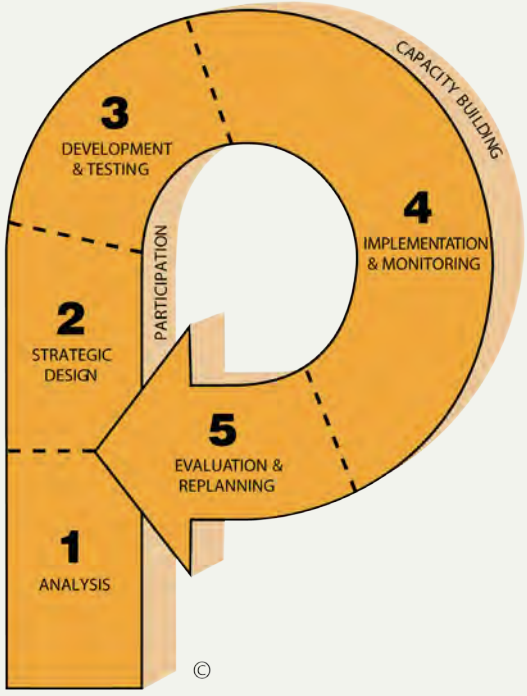
COMBI Design Process is a series of steps to design a strategy for social mobilization that aims to garner all personal and societal influences on individuals and families to encourage them to adopt healthy behavior and maintain it. COMBI draws on people-centered approaches in the fields of health education and communication that aim at changing behaviors.
http://change.comminit.com/en/node/200910/capacity

Communication for Development. In UNICEF, Communication for Development (C4D) is defined as a systematic, planned, and evidence-based process to promote individual behavior and social change that is an integral part of development programs, policy advocacy, and humanitarian work. C4D uses dialogue and consultation with and participation of children, their families, and communities. *Communication for Development: Strengthening the Effectiveness of the United Nations* is available at:
http://www.c4d.undg.org/what-c4d

Making Health Communication Programs Work: A Planner's Guide offers a practical overview to the health communication process and delves into the following four stages: planning and strategy development; developing and pretesting concepts, messages, and materials; implementing the program; and assessing effectiveness/making refinements. This guide was developed by the National Institutes of Health.
http://www.cancer.gov/PDF/41f04dd8-495a-4444-a258-1334b1d864f7/Pink_Book.pdf

The P Process, developed by JHU-CCP, guides public health practitioners in designing successful communication strategies for a range of public health issues, such as HIV prevention, child survival, and maternal mortality. First introduced in 1982 and updated in 2003, the P Process involves five main steps: analysis; strategic design;

The P-Process



development and testing; implementation and monitoring; and evaluation and replanning. The P Process encourages participation of stakeholders at all levels of society and capacity strengthening at the institutional and community levels.
http://www.jhuccp.org/sites/all/files/The%20New%20P-Process.pdf

SBCC Capacity Assessment Tool (SBCC-CAT) is the first of a group of Capacity Strengthening Measurement Tools that assist organizations in measuring their efforts to strengthen capacity in SBCC. SBCC-CAT has three versions — one for organizations to measure their technical capacity and needs in SBCC, a second for donors and networks to assess their own capacity and that of the partners they support and manage, and a third to measure changes in individual SBCC capacity.
http://c-changeprogram.org/resources/sbcc-capacity-assessment-tool

Additional Planning Resources

Audience Participation Based Message Design emphasizes the need to assess the topic of a campaign and the lifestyle of audience(s) in detail to choose the medium of communication. It lays down steps to set goals and measure impact for future use. It was featured in *Development Communication Report 79*.
http://change.comminit.com/en/node/200880

Community Driven Development Principles are a set of principles to empower people, entrust responsibility and decision making to them, and make institutions more accountable to them. It was developed by the World Bank.
http://www.stoptb.org/assets/documents/getinvolved/resmob/Community%20Driven%20Development.pdf

Community Problem Solving Network is an online space that gives people and institutions a platform to facilitate work on a wide array of developmental and social issues. It offers strategy tools, program tools, and a community for information sharing.
http://www.community-problem-solving.net/cms/

FHI 360's Process for Building a Communications Capacity is a detailed flow chart that enumerates steps to match goals and objectives of an organization with its external and internal environment, with the aim of building communications capacity. It was developed by the former Academy for Education Development (now FHI 360).
http://www.globalhealthcommunication.org/tools/29

How to Mobilize Communities for Health and Social Change. This guide is designed for use by health program directors and managers of community-based programs who are considering using communication mobilization at the individual, family, and community levels. This guide was developed by JHU-CCP.
http://jhuccp.org/node/1256

Theory-at-a-Glance: A Guide for Health Promotion Practice provides information and examples of influential theories of health-related behaviors, the processes of shaping behaviors, and the effects of community and environmental factors on behavior. This guide was developed by the National Cancer Institute.
http://www.nci.nih.gov/PDF/481f5d53-63df-41bc-bfaf-5aa48ee1da4d/TAAG3.pdf

UNICEF Communication Strategy for Development Programs, developed by the UNICEF Bangladesh Program Communication Coordination Team, guides the actual writing of a communication strategy for programs to achieve their development goals, especially their social and behavioral objectives. The tool explains the **ACADA model (Assessment, Communication Analysis, Design, Action)** that has been developed by UNICEF to link the use of systematically-gathered data to design a communication strategy for a development problem. The tool encourages participatory programming with partners. It is divided into two main parts: doing the analysis and developing the strategy, and addressing the actual development of the strategy.
http://www.unicef.org/cbsc/files/Writing_a_Comm_Strategy_for_Dev_Progs.pdf

Designing for Behavior Change Guide is designed as a six-day training to build the capacity of NGO staff to plan, implement, monitor, and evaluate effective behavior change strategies. This guide was developed by the Academy for Educational Development (now FHI 360) and the CORE Group.
http://www.coregroup.org/storage/documents/Workingpapers/dbc_curriculum_final_2008.pdf

Communication Program Planning Worksheet is a format that systematically breaks down a project into subcomponents such as identification of partners, identification of problem, target audience, secondary target audience, communication goals and objectives, communication channels, evaluation, etc. This approach was developed by UNICEF.
http://www.stoptb.org/assets/documents/getinvolved/resmob/Communication%20Programme%20Planning%20Work%20Sheet.pdf

EvaluLEAD Framework is an approach to design and understand evaluation of leadership development programs. It stresses flexibility in evaluation design while listing two broad types of evaluation approaches, three levels of effects of leadership development intervention outcomes, and six domains of outcome elements. This approach was developed by the Sustainable Leadership Initiative.
http://www.phi.org/pdf-library/EvaluLEAD.pdf

Population Leadership Program (PLP) Leadership Framework was designed for global health programs of USAID and draws on theories in transformational leadership.
http://change.comminit.com/en/node/201159

A Field Guide to Designing a Health Communication Strategy provides practical guidance to those who are in a position to design, implement, or support a strategic health communication effort with an emphasis on developing a comprehensive, long-term approach to health communication that responds appropriately to audience needs. This guide was developed by JHU-CCP.
http://www.jhuccp.org/pubs/fg/02/index.shtml

Engaging Partners and Facilitating Groups

Participatory Change: Ten Steps in Supporting Grassroots Rural Development is a list of steps to ensure greater and more meaningful participation of local communities in designing and bringing about social change. This approach combines developments in the fields of community organization, popular education, and participatory development. It was developed by the Centre for Participatory Change.
http://www.cpcwnc.org/

Planning Together: How (and How Not) to Engage Stakeholders is a tool that lays down scenarios and caveats (in the form of a matrix) to help ensure that participation is meaningful and that proceedings are democratic instead of becoming a tool for the powerful. It was developed by Community Problem Solving.
http://www.communitybuilders.ro/library/manuals/planning-together-how-and-how-not-to-engage-stakeholders-in-charting-a-course-by-xavier-de-souza-briggs/view

Involving Local Individuals and Groups is a list of steps to involve local communities and individuals in projects and activities. This could help create a better understanding of the needs of a community and assist in garnering the support of the local community.
http://erc.msh.org/mainpage.cfm?file=2.2.10.htm&module=health&language=English

International HIV/AIDS Alliance 100 Ways to Energize Groups is a compilation of energizer games and icebreakers to use in workshops, meetings, and the community to encourage participation in practice.
http://www.aidsmap.com/en/docs/pdfEnergisers2002%28English%29.pdf

UNICEF Games and Exercises is a manual for facilitators and trainers involved in participatory group events. This is a book full of games and exercises grouped around areas such as team building, conflict management, gender analysis, creativity, or evaluation.
http://www.unssc.org/web/images/downloads/Games%20&%20Exercises%20VIPP%20UNICEF.pdf

UNICEF VIPP: Visualization on Participatory Programs explains how to facilitate and visualize participatory group processes, with helpful guidelines that can be applied to various aspects of learning-centered facilitation.
http://www.southbound.com.my/vipp

The "A" Frame for Advocacy gives a step-by-step guide to advocacy approaches. This is for civil society actors and health planners to use when designing advocacy campaigns. It was developed by Johns Hopkins University in partnership with USAID.
http://www.infoforhealth.org/pr/advocacy/index.shtml

Project HOPE—Seven Steps for Planning a Community Initiative is a step-by-step guide to identify problems confronting a community and build the capacity of the community to design and launch an initiative.
http://www.comminit.com/en/node/201063

Civil Society Planning Toolkits, developed by CIVICUS, is a set of tools aimed at helping organizations get up to speed on a variety of issues, starting with writing skills and going on to developing media, handling media, planning, evaluating, controlling finances, and budgeting.
http://www.civicus.org/component/search/?searchword=planning+toolkit&ordering=newest&searchphrase=all&limit=100

Monitoring and Evaluation

A Guide for Monitoring and Evaluating Population-Health-Environment Programs encourages program M&E to improve the quality of work in the population-health-environment area. The guide provides a listing of the most widely used M&E indicators for population-health-environment programs. This guide was developed by MEASURE Evaluation/USAID.
http://www.cpc.unc.edu/measure/tools/other-health-related-programs

Essentials for Excellence is an M&E guide that provides straightforward answers to often complex questions (including sampling, research design, and pre-testing), provides handy tips, and practical advice. Although the guide focuses specifically on Pandemic Flu and Avian Influenza, suggestions are meant to be adapted to suit each user's circumstances and needs. The guide was produced by UNICEF.
http://www.unicef.org/eapro/activities_9663.html

Qualitative Research for Improved Health Programs: A Guide to Manuals for Qualitative and Participatory Research on Child Health, Nutrition, and Reproductive Health is a guide designed for program managers, researchers, funders of health programs, and others who are considering using qualitative research methods to help them design more effective health programs and/or evaluate the strengths and weaknesses of existing programs. This guide was developed by Johns Hopkins University Bloomberg School of Public Health.
http://globalhealthcommunication.org/tool_docs/67/qualitative_research_for_improved_health_programs_-_a_guide_.pdf

Monitoring and Evaluating Advocacy: A Scoping Study sets out to document the various frameworks and approaches that international agencies are using to assess the value of their advocacy work. The report draws on a large body of literature as well as first-hand interviews and discussions. The report does not attempt to evaluate the various frameworks. It sets out to draw together a body of knowledge without passing judgment on the merits or demerits of various approaches. This study was developed by ActionAid.
http://www.g-rap.org/docs/monitoring_and_evaluation/Chapman-Wameyo%202001%20M&E%20on%20Advocacy.pdf

Training in Qualitative Research Methods for PVOs and NGOs is a set of training manuals (a trainer's guide and participant's manual) designed to promote the systematic use of qualitative methods by PVOs and NGOs to help plan and manage community health programs. This document was developed by the Johns Hopkins University Bloomberg School of Public Health/Center for Refugee and Disaster Studies.
http://www.jhsph.edu/refugee/publications_tools/publications/qualresearchtrain.html (Curriculum)
http://www.jhsph.edu/refugee/publications_tools/publications/qualresearch.html (Participant Resources)

Other Online Resources

President's Malaria Initiative SBCC Repository showcases communication materials developed by USAID/President's Malaria Initiative (PMI) partners working in PMI target countries in sub-Saharan Africa. Technical staff working in malaria can view, download, contribute to, and share communication materials. The strategies, research, testing, and evaluation documents related to those materials are also included. The ambitious PMI coverage targets can only be achieved through a coordinated approach with a broad partner base, at both the country and international levels.
http://www.c-hubonline.org/collections/pmi.html

JHU-CCP's Malaria Gateway allows health professionals to search a collection of 65 carefully selected websites to find relevant and reliable information. Sites include the CDC, the Global Health Council, the Pan American Health Organization, the PMI, RBM, UNICEF, the World Bank, and WHO.
http://www.k4health.org/resources/malaria_gateway

Soul Beat Africa: Malaria is a knowledge sharing system focused on SBCC for malaria prevention, control, and treatment in Africa, supported by the President's Malaria Initiative and its partners. The site features examples of quality, effective SBCC information, including research findings; strategies; implementation reports; tools, materials, and multimedia products; and training opportunities.
http://c-changeprogram.org/news/launch-soul-beat-africa-malaria-online-resource-sbcc-malaria-practitioners

C-Capacity: Capacity Strengthening Online Resource Center highlights resources and opportunities to strengthen capacity in social and behavior change communication.
http://www.comminit.com/c-change-orc

Center of Excellence at the University of Witwatersrand School of Public Health, South Africa, has launched a concentration in SBCC within its Masters in Public Health program. This is supported by USAID through C-Change and other donors.
http://www.wits.ac.za/academic/health/publichealth/postgraduateprogrammes/10579/masterofpublichealth.html.

For information on the short courses please visit:
http://www.wits.ac.za/academic/health/publichealth/10545/shortcourses.html

C-Channel is an e-newsletter that presents a selection of recent, peer-reviewed journal articles about SBCC around family planning, reproductive health, HIV and AIDS, malaria, maternal health and antenatal care, and social and gender norms. Subscribe at:
http://sympa.healthnet.org/wws/subscribe/c-channel-iw

Communication Initiative (CI) Network is an online network for development where users can get information by region, health sector, and program area. It has a variety of newsletters that can be subscribed to online.
http://www.comminit.com/global/spaces-frontpage

C-Picks presents implementation experiences, evaluations, strategic thinking, and tools and resources relevant to SBCC that have been selected by C-Change from the CI Network's overall knowledge base.
http://www.comminit.com/c-change-picks/user/register

USAID Global Health E-Learning Center offers a menu of courses that learners can use to expand their knowledge in key public health areas and to access important up-to-date technical information. This course is part of USAID's global health learning platform where learners can complete training courses at no cost.
http://globalhealthlearning.org/login.cfm

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