



Empowering communities for better health

TDR BUSINESS LINE 11

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Table of contents

| | |
|---|----|
| Context, framework and strategic objectives | 5 |
| Progress so far | 6 |
| Leverage, empowerment, stewardship, and links with other TDR BLs..... | 6 |
| 1. Context, strategic objectives and framework | 7 |
| 1.1. Context and rationale..... | 7 |
| 1.2. Strategic objectives..... | 8 |
| 1.3. Strategic framework | 9 |
| 2. Key stakeholders, roles and responsibilities | 11 |
| 3. Implementation plan for 2008–2013 and progress | 13 |
| 3.1. Plan, progress and key milestones | 13 |
| 3.2. Implications of progress/delays and global context changes on 2008–2013..... | 15 |
| 3.3. Specific activities for 2009..... | 16 |
| 4. BL leverage, contribution to empowerment and stewardship, and synergies with TDR business lines | 19 |
| 4.1. Leverage..... | 19 |
| 4.2. Contributions to overall empowerment and stewardship objectives | 20 |
| 4.3. Elements enhancing sustainability of BL outcomes..... | 20 |
| 4.4. Synergies with work of other TDR BLs | 20 |
| 5. Critical issues and suggested solutions | 21 |
| 5.1. Research capacity in disease-endemic countries..... | 21 |
| 5.2. Prevailing local conditions..... | 21 |
| 6. Conclusion | 22 |
| 7. Annexes | 23 |
| 7.1. List of publications..... | 23 |
| 7.2. BL11 SAC membership | 23 |
| 7.3. Details of revision of business plans | 24 |
| 7.4. Responses to Joint Coordinating Board / Scientific and Technical Advisory Committee requests | 24 |

List of abbreviations

| | | | |
|--------------|---|-----------------|--|
| APOC | African Programme for Onchocerciasis Control | MOH | Ministry of Health |
| BL11 | Business Line 11 | NDCP | National Disease Control Programme |
| CBI | Community-based Intervention | NTD | Neglected Tropical Diseases |
| CDI | Community-Directed Intervention | Oncho | Onchocerciasis |
| CDTi | Community-Directed Treatment with ivermectin | SAC | Scientific Advisory Committee |
| DECs | Disease-Endemic Countries | SPSS | Statistical Package for Social Sciences |
| DHMT | District Health Management Team | STAC | Scientific and Technical Advisory Committee |
| GAELF | Global Alliance for the Elimination of Lymphatic Filariasis | TDR | Special Programme for Research and Training in Tropical Diseases |
| GFATM | Global Fund to Fight AIDS, TB and Malaria | USAID | United States Agency for International Development |
| GMP | Global Malaria Programme | WHO | World Health Organization |
| HMM | Home Management of Malaria | WHO/AFRO | World Health Organization Regional Office for Africa |
| ITI | International Trachoma Initiative | | |
| ITNs | Insecticide-Treated Nets | | |
| JAF | Joint Action Forum | | |
| LOI | Letters of Intent | | |

Context, framework and strategic objectives

Although effective and simple tools are available to prevent or treat most infectious diseases of poverty, access to interventions continues to be a major challenge for a large proportion of the affected poor and rural populations, particularly in Africa. At the same time, renewed interest in the importance of primary health care also offers new opportunities for TDR “access-oriented research” to contribute to innovative health care strategies, building upon experiences in home management of malaria and in community-based delivery of interventions.

This report describes the progress made in TDR research on Integrated Community-based Interventions, Business Line 11 (BL11). This BL aims to develop innovative, effective and efficient strategies for implementing community-based interventions in poor populations. This research involves multi-country studies conducted in partnership with disease endemic countries (DECs) extending over periods of 2–6 years, overseen by a Strategic and Scientific Advisory Committee (SAC). End-products of the business plan developed for 2008–2013 include the following:

- policy briefs on integrated community-based interventions (CBI) and a “tool box” on how to design and implement integrated community-based interventions;
- a strategy for extending community-directed interventions (CDI) into areas where community-directed treatment with ivermectin (CDTi) has not been implemented;
- alternative community-based intervention strategies targeting urban areas and underserved populations (post-conflict areas, nomadic and transitory populations);
- strategies that enhance communities’ capacity to demand and implement community-based interventions.

Progress so far

During 2008, the positive findings, conclusions and recommendations from the three-year trial, *Community-directed interventions for major health problems in Africa: a multi-country study*, were synthesized and published (TDR, 2008). The report was presented and well received at the Consultation of R&D for Malaria Eradication meeting in Seattle in March 2008 and at the International Conference on Primary Health Care and Health Systems – Round Table on CDI in April 2008 in Ouagadougou, Burkina Faso. Another multi-country study evaluating whether the CDI approach could increase access to treatment for schistosomiasis with praziquantel concluded that CDI could increase both treatment access and coverage.

The SAC for BL11 convened its first meeting in May 2008. The committee reviewed the business plan, refined study objectives and end-products, and redefined more realistic activity timelines. The SAC also recommended that the following be defined as research priorities: CDI in non-onchocerciasis-endemic areas; CDI in urban areas; social science research on CDI incentives; and community interventions in post-conflict and nomadic populations. In view of these recommendations, this research area subsequently re-organized the sequence of activities and their implementation.

Leverage, empowerment, stewardship, and links with other TDR BLs

The widespread press attention to the results of the CDI study and its potential for future applications and policy has significantly contributed to the leverage exerted by this BL's activities. BL11 provides stewardship leverage through its engagement of a broad range of stakeholders, including DEC disease control directors, ministries of health and WHO departments dealing with neglected tropical diseases (NTDs), to determine needs and priorities for new forms of CDI research. The BL also empowers DEC health systems, researchers and, very significantly, communities themselves to take leadership roles and act on vital health issues even in remote and resource-limited settings.

1. Context, strategic objectives and framework

1.1. Context and rationale

Many effective and simple interventions and tools are available for the prevention and treatment of infectious diseases of poverty, such as malaria and NTDs (the most important being leishmaniasis, human African trypanosomiasis, Chagas disease, trachoma, leprosy, buruli ulcer and the helminth infections including hookworm, ascariasis, trichuriasis, lymphatic filariasis, onchocerciasis, drancunculiasis and schistosomiasis). However, these interventions do not reach the affected poor rural and urban populations that need them most, particularly in Africa. The promising new interventions that do get to communities often have a limited impact because they are not delivered in an efficient and sustainable manner to poor populations. Largely as a result of this, infectious diseases remain a major cause of morbidity and mortality in developing countries and especially in Africa, where they are responsible for 60% of all deaths.

In many developing countries, especially Africa, effective and sustainable delivery of promising interventions is difficult due to the weakness of public health systems. At the same time, many simple interventions do not require trained health professionals for delivery and can be administered at the community level by community members who have received basic training. Disease control programmes are therefore increasingly setting up community-based delivery strategies and interventions that utilize these groups of trained, community-based volunteers when clinical/hospital staff and/or facilities are not available. However, approaches used vary significantly in terms of community involvement, effectiveness and sustainability, and there has been very little research to evaluate and compare these strategies to determine

how they could be optimized. There is, therefore, an urgent need for research into integrated community-based interventions that build on effective models, such as home management of malaria and community-directed treatment of onchocerciasis, in which communities are empowered to manage the process themselves.

Over the past ten years, a strategy of community-directed *treatment* with one annual dose of ivermectin (CDTi) has been developed and tested. This intervention was designed, set up and managed by each community itself, with the help and participation of the national health system and/or international level partners. In cooperation with the African Programme for Onchocerciasis Control (APOC), this original model now reaches over 40 million Africans annually, distributing the drug that can prevent the debilitating symptoms of skin disfigurement, itching and blindness. Building upon that experience, a new study on community-directed *interventions* (CDI) was developed to test how many other interventions of varying complexity for different conditions could be delivered with this model. The result was the final report on the three-year, multi-country study (TDR, 2008) that showed dramatically improved access to a number of interventions, including malaria treatment. Looking forward, future research on the advantages and/or disadvantages of CDI for the delivery of interventions at the community level, and on scaling up CDI for other interventions, will have a potentially positive impact on the poor and rural populations' access to health interventions.

During the past decade, TDR has acquired unique technical and field experience in the design and implementation of complex multi-country studies, as well as in the development of models for community-based interventions such as CDTi, some practical aspects of home management of malaria (HMM) and

CDI as strategies for effective delivery of integrated interventions. More generally, TDR is a global leader in implementation research on access and community-based delivery strategies against malaria, neglected tropical diseases and other infectious diseases of poverty, and thus is well placed to pursue this work.

Additionally, the community-directed models fit well with WHO's recently articulated goals and strategies for strengthening primary health care systems at the community level and promoting integrated approaches to service delivery. Finally, the current commitment among global research partners and funders to helping communities play a pivotal role in managing their own research priorities and services provides significant support to this effort.

1.2. Strategic objectives

In line with the overall goal of developing innovative, effective and efficient strategies for implementing community-based interventions (CBI) in poor populations, there are four strategic objectives:

1. Develop an analytic framework for integrated community-based interventions.
2. Conduct research on critical factors in the scale-up of community-directed interventions (CDI) (a sub-section of the broader concept of CBI) and explore how to efficiently introduce CDI into new areas.
3. Develop and test alternative community-based intervention strategies targeting underserved populations.
4. Develop strategies that enhance communities' capacity to demand and implement community-based interventions.

Crosscutting objectives: research to promote gender equality and empowerment

Gender equality is a critical factor in the delivery and uptake of interventions at the community level. The research activities of this business line will systematically assess the specific role of gender in the planning and implementation process at the community level, evaluating gender-specific coverage of the interventions. CDI models employ traditional consultation and decision processes, which are male-dominated in most DECs. This research will include a detailed analysis of the roles of gender in the decision process, and to what extent reinforcement of the roles of women within the context of the prevailing socio-cultural environment would strengthen intervention delivery and its sustainability. Both qualitative and quantitative research methods will be employed to document the role of gender and to identify gender-related opportunities to strengthen equitable delivery of these interventions of the business line.

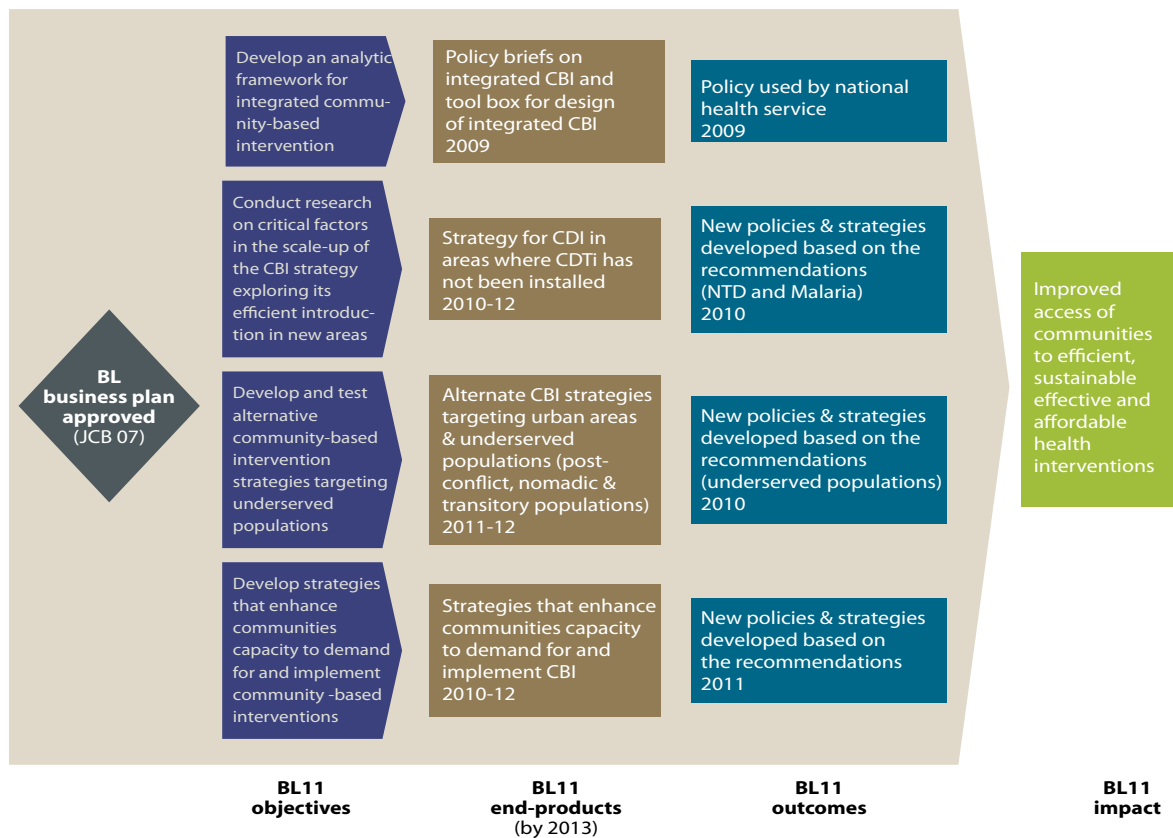


Fig. 1. Integrated community-based interventions strategic approach

1.3. Strategic framework

The strategic plan of this business line takes advantage of the “statistical power” of large multi-disciplinary, multi-country studies. It is being undertaken in close collaboration with national, regional and global disease control programs, including the African Programme for Onchocerciasis Control (APOC) and WHO’s NTD and malaria programmes. Preparation of these studies involves extensive consultation with disease control programmes and ministries of health to carefully define the research needs and research questions. This is followed by exploratory studies to identify potential solutions that also take into account critical social factors, such as gender and economic status. The business line focuses on Africa, and the research is conducted through the extensive network of African public health and social science

researchers that has been established in the context of previous TDR research.

The intervention strategies to be tested will be implemented through the national health programmes such as the national ivermectin treatment cycle, rather than as a parallel activity. The main research activities are to be carried out by DEC researchers selected through a competitive process involving responses to TDR “Calls for letters of intent” open to all developing countries in Africa. Proposal development workshops with prospective research teams and research leaders will precede selection of teams that will execute the studies. Studies are being coordinated, facilitated, supervised and managed by the TDR secretariat for BL11 and evaluated by the SAC, including through site visits by committee and TDR secretariat members and other external scientists. Fig. 1 illustrates the strategic approach of this BL.

TABLE 1. INDICATORS FOR END-PRODUCTS AND OUTCOMES FOR BL11, COMMUNITY-BASED INTERVENTIONS

| Strategic objective | End-products (2013) | Indicators for end-products | Expected outcomes | Indicators for expected outcomes |
|---|--|--|--|---|
| 1. Develop an analytic framework for integrated community-based interventions | <ul style="list-style-type: none"> • Policy briefs from systematic review on integrated community-based interventions (CBI) • Tool box on how to locally design and implement integrated CBI | <ul style="list-style-type: none"> • Number of policy briefs produced • Tool box developed | Policy briefs used by national health services (Q4 2009) | Number of national services using policy brief in year |
| 2. Conduct research on critical factors in the scale-up of community-directed interventions (CDI) | Strategy for CDI in areas where there is no onchocerciasis and that have never had community-directed treatment with ivermectin (CDTi) installed | Number and percentage of communities covered with CDI (neglected tropical diseases [NTD] and malaria) | New policies and strategies developed based on recommendations (NTD and malaria) (2010) | <ul style="list-style-type: none"> • Number of new policies and strategies developed based on the recommendations (NTD and malaria) • Number and percentage of communities covered with CDI (NTD and malaria) |
| 3. Develop and test alternative community-based intervention strategies targeting underserved populations | Alternative delivery studies for: <ul style="list-style-type: none"> • Community-based interventions in urban areas • Community-based interventions in post-conflict areas, nomadic and transitory populations | Number and percentage of communities covered with the research studies on CDI (underserved populations) | New policies and strategies developed based on the recommendations (underserved populations) (2011-2012) | <ul style="list-style-type: none"> • Number of new policies and strategies developed based on the recommendations (underserved populations) • Number and percentage of communities covered with CDI regular programme |
| 4. Develop strategies that enhance communities' capacity to demand and implement community-based interventions | Strategies that enhance communities' capacity to demand and implement community-based interventions | Number and percentage of communities empowered to influence implementation strategy and assistance to reinforce their demands for support and supplies for interventions | New policies and strategies developed based on the recommendations (2011) | Number of new policies and strategies developed based on the recommendations (incentives to volunteers) |

2. Key stakeholders, roles and responsibilities

Key partners at the international level include global or regional disease-control initiatives, including formal partnerships where these exist (such as Roll Back Malaria, the Global Alliance for the Elimination of Lymphatic Filariasis and the International Trachoma Initiative). The business line interacts on a regular basis with the technical advisory bodies of such programmes. The business line also draws from the experience of other partners working in knowledge translation at the community, national and global levels, such as the Alliance for Health System and Health Research Policy and the Regional East Community Health Policy Initiative. Members of the communities where the research activities take place also are active shareholders and partners. Funding of the BL's activities, like all implementation research in TDR, is mainly supported by TDR. The key stakeholders' roles and responsibilities are set out in **Table 2**.

TABLE 2. KEY STAKEHOLDERS, ROLES AND RESPONSIBILITIES

| Key stakeholders | Responsibilities | Roles |
|---|--|---|
| Ministries of health (MoH), national disease control programmes (NDCPs), district health management teams (DHMTs) | <ul style="list-style-type: none"> • Define research needs and obstacles to control • Postulate and test possible solutions | <ul style="list-style-type: none"> • Implementers of research • Use research findings and convert to policy |
| Scientists for DEC institution | Undertake research | Implementers |
| Non-governmental organizations | Define needs and undertake some of the research | Users, implementers and supporters |
| Leading international scientists | <ul style="list-style-type: none"> • Ensure that the research is of high standard • Capitalize on the latest scientific advances | Advisers and facilitators |
| Global/regional disease control initiatives: Roll Back Malaria Program (RBM), Global Alliance for the Elimination of Lymphatic Filariasis (GAELF), International Trachoma Initiative (ITI) | Technical programmes interact regularly with research leaders/teams | Advisers |
| WHO/AFRO | <ul style="list-style-type: none"> • Actively involved in all activities of the business line, especially in the interpretation of research findings and assessment of their relevance for regional health policy | Support, provision of policy briefs |
| WHO/country offices | <ul style="list-style-type: none"> • Facilitate effective interaction with ministries of health, especially with respect to needs analysis and translation of research findings into national policy | Facilitators |
| African Programme for Onchocerciasis Control (APOC) | <ul style="list-style-type: none"> • Leverages CDT experience interest in continued BL research for improved control strategies | Facilitators, supporters |
| WHO/HQ (GMP, NTD) | <ul style="list-style-type: none"> • Close interaction with the technical units for different diseases at the global level of WHO | Advisers, facilitators and supporters |
| Potential funding agencies/partners <ul style="list-style-type: none"> • African Programme for Onchocerciasis Control (APOC) • Bill and Melinda Gates Foundation • United States Agency for International Development (USAID) • Global Fund to Fight AIDS, TB and Malaria (GFATM) • Drug-donating pharmaceutical companies, possible bilateral donors | | Potential funders |

3. Implementation plan for 2008–2013 and progress

3.1. Plan, progress and key milestones

Key highlights

The first Scientific Advisory Committee (SAC) meeting was held in May 2008

The SAC made a thorough review of the base document for BL11 and refashioned the specific objectives. Timelines were also redefined to make them more realizable. The revised plan reorganized priority areas of research as:

- CDI in non-onchocerciasis-endemic areas and urban areas;
- Incentives and social science research;
- Community interventions in post-conflict and nomadic populations.

Strategic objective 1. Develop an analytic framework of integrated community-based interventions

End-product: Policy briefs from systematic review of integrated community-based interventions and toolbox on how to locally design and implement integrated community-based interventions.

A systematic review on the cost, effectiveness and management of community-based interventions has begun, identifying key factors influencing community participation in the fight against infectious diseases of poverty. The final base products are expected in the later half of 2009. This area of work will be an ongoing activity to include new research developments as evidence is generated.

Strategic objective 2. Conduct research on critical factors in the scale-up of community-directed interventions

End-product: Research strategy of CDI in areas where there is no onchocerciasis and the population has never been exposed to CDTi.

Research activities in this area focus on the critical factors that influence the scale up of CDI for NTDs and malaria, including the interface between the health system and the communities.

A three-year, multi-country CDI study involved 4 countries – 40 health districts in 8 study sites – from 2004 through 2007 and examined some of the critical factors that influence the scale-up of CDI. The study covered around 2.4 million people with an average of 380 000 – 530 000 people living in the area defined by each study site. In all, five interventions (including the ongoing ivermectin treatment) were delivered through the CDI process.

The final project report, *Community-directed interventions for major health problems in Africa: a multi-country study*, was published in April 2008 (Fig. 3). The study findings indicate that CDI is a more effective strategy to deliver additional health interventions in a community-based setting than traditional methods of delivery in the case of Vitamin A supplementation, the distribution of insecticide-treated nets (ITNs), home management of malaria (even surpassing Roll Back Malaria targets), but not for treatment of tuberculosis. Moreover, it was found that at least four to five interventions can safely be incorporated into the integrated delivery package. The CDI process achieves higher coverage for different interventions with no increase in implementation costs at the health district and first-line health facility level, and is therefore more cost-effective. Based on these

findings, the study developed criteria to evaluate types of interventions for which the CDI process is appropriate and guidelines for the implementation of integrated CDI against major health problems in Africa. Extensive stakeholder consultation and consensus-building were critical factors ensuring success of the study at the community level as well as synthesis of study results for the final CDI publication. For instance, SPSS training was held for the economists of the eight teams. This has enabled the development of standard algorithms for analysis of the costing data.

Findings were presented publicly at the International Conference on PHC and Health Systems in Africa in April 2008 at Ouagadougou, Burkina Faso, and to the news media. The Joint Action Forum of the African Programme for Onchocerciasis Control (APOC), in its meeting of December 2007, endorsed the main recommendations of the study group. These urge that: CDI be used for the integrated community-level delivery of appropriate interventions where it is already established for onchocerciasis control; CDI packages be developed on the basis of local considerations and criteria from this study; special efforts be made to ensure reliable supplies, supportive policies and guidelines; priorities for future research include research on the use of CDI in non-onchocerciasis areas; and health systems research be conducted on supply systems. Findings and recommendations from the study have been widely reported at high-level meetings, as well as in various media in print and film. Research findings have thus already exerted very significant leverage on health policy at multiple levels (global, regional, country) as well as on practice at country level (Section 4.1).

CDI for delivery of praziquantel

The Kenyan arm of a multi-country study evaluating the use of a CDI strategy for treatment of schistosomiasis with praziquantel found that the CDI approach could increase both treatment access and coverage. Completion of the study in two other countries, Mali and Ghana, was delayed somewhat due to delays in national drug treatment cycles, but was nonetheless finalized by the end of 2008.

Ten research teams have been selected from a total of 67 that sent in letters of intent for the research studies. These 10 participated in a proposal/protocol development workshop to develop a core protocol for the studies. Six teams have been selected based on their final proposals to undertake both the formative and intervention phases.

Strategic objective 3. Develop and test alternative community-based intervention strategies targeting the underserved population

End-product: Evidence-based alternative delivery methods, including community-based interventions in urban areas and community-based interventions in post-conflict areas, nomadic and transitory populations.

A peer reviewed selection was made from a number of letters of intent. Ten teams were selected and participated in a protocol/proposal development workshop to develop their core protocol for the multicounty study. One of these five teams will be selected to conduct research addressing interventions in urban poor areas.

Strategic objective 4. Develop strategies that enhance communities' capacity to demand and implement community-based interventions

End-product: Evidence for strategies that enhance communities' capacity to demand and implement community-based interventions.

This research area includes the systematic review of evidence on the effects of incentive mechanisms on the performance of community implementers. A study in Mali has found 14 different health programs that use community volunteers, all with different incentive policies ranging from no external financial incentives to payment per person covered. A multi-country study has been funded by APOC in several African countries to conduct a situation analysis like the Mali study. A second intervention phase will be managed by Business Line 11 to develop and test possible solutions. The full review for this objective is being planned.

Table 3 describes the complete list of planned activities for the BL against milestones reached/progress made and revised timetable dates.

3.2. Implications of progress/delays and global context changes on 2008–2013

There have been delays in the initiation of protocol and proposal development workshops, which are to precede each of the multi-country activities planned for 2008–2013. This has been due to unsatisfactory response to calls for letters of intent, including virtually no applicants from the Francophone/Lusophone countries. Repeat calls were subsequently issued. The first protocol development workshop was successfully completed in October 2008 for one of the studies planned under Strategic Objective 2 (conduct research on critical factors in the scale-up of community-directed interventions strategy, and explore how to efficiently introduce it into new areas). These delays will affect the set milestones and also the delivery time of the final end products, moving them 8–12 months later than the milestones originally defined.

3.3. Specific activities for 2009

In 2009, the BL will undertake the following activities:

- A protocol development workshop for ten research teams, with a view to selecting the best five teams to undertake research on the introduction of CDI into urban areas.
- Initiate studies on the introduction of CDI into urban areas.
- Formative phase of study on strengthening primary health care in rural Africa using the community-directed intervention approach.
- Proposal development workshop for the intervention phase of the multi-country study on strengthening primary health care in rural Africa using the community-directed intervention approach.
- Protocol development workshop on proposals for CDI in nomadic and post-conflict areas.
- Studies on the impact of incentives on community implementers, including:
 - systematic review of evidence on the effects of incentive mechanisms on the performance of community implementers;
 - innovative solutions for incentives and motivation of community implementers;
 - mechanisms through which communities are empowered to better fight infectious diseases of poverty.

Other research areas to be pursued within this business line will be in the specific areas of public health ethics, equity effectiveness and the use of schools settings for interventions.

School-health programmes such as preventive chemotherapy against schistosomiasis and intestinal helminths are attractive for the delivery of interventions among school-age children, but their use for neglected diseases has been limited in Africa. BL11 plans to explore in the next year what the main obstacles are to enlarging the outreach of these programs, and once the reasons are better understood, to experiment with possible solutions.

TABLE 3. IMPLEMENTATION PLANS AND PROGRESS FOR 2008–2013 ACTIVITIES

| BL objectives | Activities (2008–2013) | Milestones and target dates | Progress made | Revised dates (if relevant) |
|---|--|--|---|-----------------------------|
| Develop an analytic framework for integrated community-based interventions (CBI) | <ul style="list-style-type: none"> • Systematic review of available evidence on costs, effectiveness and management of CBI • Identification of key factors influencing community participation in the fight against infectious diseases of poverty | <ul style="list-style-type: none"> • Study commissioned and conducted (2009) • Draft reports and policy briefs on integrated community-based interventions (Q2 2009) | Not yet conducted. Initial attempts at commissioning failed because of last-minute decline of the consultant to undertake it. Attempts to hire a new one are on course. | December 2009 |
| Conduct research on critical factors in the scale-up of community-directed interventions (CDI) strategy and explore how to efficiently introduce it into new areas | Research on critical factors that influence the scale up of CDI for NTD and malaria, including the interface between the health system and the communities | <ul style="list-style-type: none"> • Conceptualizing up-scaling CDI programs identified with agreed inclusion of an implementation research component (Q1 2009) • Major obstacles to up-scaling CDI identified. Studies launched to test possible solutions (2009) | <ul style="list-style-type: none"> • Preliminary factors identified from the major CDI study completed 2008 • Yet to be implemented | Not applicable |
| | Studies to determine how to most efficiently introduce CDI in areas without CDTi for onchocerciasis | Competitive selection of researchers for a multi-country study on CDI in onchocerciasis-free areas done, research protocol finalized, research teams funded and studies started (Q1 2009) | Selection done. Research protocol for formative phase finalized for SAC review by 1 January 2009 | Not applicable |

| BL objectives | Activities (2008–2013) | Milestones and target dates | Progress made | Revised dates (if relevant) |
|--|---|--|---|---------------------------------|
| Develop and test alternative community-based intervention strategies targeting underserved populations | Introduction of community intervention in urban areas | Researchers selected through a competitive process for a multi-country study on delivery strategies in urban areas; research teams funded and studies started (2009) | Teams selected for protocol development in January 2009 | |
| Develop strategies that enhance communities' capacity to demand and implement community-based interventions | Systematic review of evidence on the effects of incentive mechanisms on the performance of community implementers | Systematic review of evidence on the effects of incentive mechanisms on the performance of community implementers started (2008) | Preliminary reviews completed through African Programme for Onchocerciasis Control-funded studies (Q1 2008) | Full review moved to early 2009 |

4. BL leverage, contribution to empowerment and stewardship, and synergies with TDR business lines

4.1. Leverage

Findings and recommendations from the CDI study (TDR, 2008) have already been widely reported at high-level meetings, in-country briefings and in the media, including a BBC documentary, *Empowering Communities to Fight Disease*. Findings also were featured in a box in the *World Health Report 2008* (p. 109) as well as being included in references¹. This represents the first time a TDR BL report's findings were noted in a World Health Report.

Findings and conclusions of the study have thus begun to exert very significant leverage on policies at various levels (global, regional, country) as well as on public health practice at country level. Leverage is particularly pronounced with respect to countries working in partnership with APOC and/or on interventions related to neglected tropical diseases.

High-level policy and country technical briefings

- Consultation of R&D for malaria eradication meeting in Seattle in March 2008;
- Round table on CDI at the International Conference on PHC and Health Systems in Africa in April 2008 at Ouagadougou, Burkina Faso, with official launch of report and press release;
- Mectizan Expert Committee in Atlanta, Georgia, United States of America;
- Technical Consultative Committee, Ouagadougou, Burkina Faso;
- Country-specific post-study briefings have been held for wide audiences in Nigeria and Uganda; a similar briefing was held in Cameroon in December 2008;

In terms of funding leverage, TDR funding of implementation research helped leverage significant investment by other agencies, particularly the African Programme for Onchocerciasis Control. Along with co-funding the CDI study, APOC also funded preliminary studies to ascertain national policies on incentives for volunteers. Further APOC support for planned studies is also anticipated.

¹ - World Health Report 2008, p. 112, ref. 19, 27.

4.2. Contributions to overall empowerment and stewardship objectives

TDR has demonstrated global stewardship in facilitating needs analysis and priority-setting for current and future implementation research on community-directed interventions. The present business line collaborates with the TDR Stewardship Function to obtain and to provide up-to-date and comprehensive information on an analytic framework for integrated community-based interventions.

In terms of empowerment, the BL activities have played a powerful role in empowering communities and health systems officers at the grassroots to determine their own health needs and influence research accordingly. Extensive stakeholder consultation and consensus-building at the community level have been critical factors in all aspects of CDI research, as well as in the synthesis of study results. The BLs multi-country studies have contributed very significantly to the training and capacity-building of a pool of available trained scientists in African DECs qualified to engage in community-based implementation research – from the biomedical fields as well as from economics and the social sciences. This has included specific activities, such as training for economists engaged in the 2004–2008 CDI multi-country study and the new series of protocol development workshops. Such workshops equip principal investigators with skills to lead complex research teams. BL11 contributes directly to the TDR Empowerment business line by providing space and support for part of the training offered to trainees within the Empowerment plans.

4.3. Elements enhancing sustainability of BL outcomes

The premise of the research in BL11 is that both the health systems and targeted communities of DECs play a central role in planning and execution of research and implementation of results. Research objectives are established primarily on the basis of felt needs as articulated by health system policy-makers themselves. This builds confidence and helps ensure that the outcome of the research (their product) will not only be welcomed by the ministries of health, but will also be sustainable.

4.4. Synergies with work of other TDR BLs

This BL has cross-cutting associations and collaboration with most of the other business lines. It is closely associated with those on drug development and evaluation for helminths and other neglected tropical diseases (BL3 and BL6). It will collaborate with BL5 to investigate the effects of climatic and environmental changes on major vectors of disease and is investigating a joint program with BL7 on diagnostics, especially in the area of community acceptance and utilization of diagnostics. BL11 is working with BL9 to help develop evidence for antimalarial policy; strategies and models for integrated drug delivery, as well as incentives for community implementers/volunteers, are among the common issues being addressed. A joint research activity in the specific area of incentives for community volunteers is being planned by BL9 and BL11.

5. Critical issues and suggested solutions

5.1. Research capacity in disease-endemic countries

For reasons of relevance and credibility of the research, it is essential that study design and research implementation is undertaken by scientists from disease-endemic countries. Not all DEC countries have the necessary capacity for this type of multidisciplinary research. There is a risk that the research teams could be predominantly selected from more advanced countries rather than from developing countries, thus limiting the relevance of the research findings. Special efforts will therefore be undertaken through targeted selection to include countries with limited research capacity and experience in the studies. The BL will collaborate with the TDR Empowerment business line to provide additional capacity-building support for those countries and ensure that they can fully and effectively participate in research activities.

Currently the BL is faced with the challenge of attracting new but experienced scientists and researchers, especially from the Francophone and Lusophone countries, to participate in the research effort. Attempts have been made to target researchers from the non-English countries through “calls” specifically put out for them, but with minimum success.

Another way to encourage fresh researchers to participate in this endeavour would be to approach the relevant institutions to support their researchers to submit proposals for consideration for funding.

5.2. Prevailing local conditions

Governance in DEC countries has its own challenges, and in certain countries or regions this may be fraught with unstable and fragile political conditions. These can result in frequent changes of administration, especially among ministry of health leadership. Such changes may disrupt the smooth running of research agendas and cause delays in reaching the objectives of the business line. It will be crucial to involve the technical personnel in the countries concerned with the research very early in the planning stage to ensure sustainability in case of leadership change. To do this, it is a requirement that each research team includes personnel from the control department of the ministry of health.

Prevailing local climatic changes, such as floods and drought that often alternate from year to year, and the difficulty of securing food could also derail the activities envisaged for this business line, given the very heavy involvement of the community in the research activities. These vagaries of the weather should be anticipated and factored into a possible extension of the projects so as to be able to complete them satisfactorily.

6. Conclusion

There is an urgent need to make available to affected poor and rural populations the many effective and simple interventions and tools to prevent and treat infectious diseases of poverty. However, promising new interventions have a limited impact due to failures to deliver them in an efficient and sustainable manner. It is therefore important to find innovative ways that can build on previous efficacious strategies to get these tools to the affected people. TDR's previous experience in implementation research gives it a unique advantage in undertaking the research needed to improve the delivery of some interventions and tools.

The results of the TDR multi-country study show that CDI is a more effective strategy to deliver health interventions in a community-based setting than traditional methods of delivery. The BL11 SAC, in its final meeting report, recommended that future research on CDI focus on 1) non-onchocerciasis areas, 2) urban areas and 3) post-conflict and nomadic populations. Incentives and other social science aspects of community-directed interventions were also named as priority research areas for BL11. SAC made substantive changes in the core BL11 business plan so as to make the objectives and the period of realizing the end-products more realistic and relevant. While much work remains to be accomplished, progress made during the first year of TDR's new strategy is nonetheless significant, helping within this BL to establish evidence-based strategies of community-based models of health services delivery.

7. Annexes

7.1. List of publications

Community-directed interventions for major health problems in Africa: a multi-country study. Geneva, UNICEF/UNDEP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases, 2008. (TDR, 2008)

7.2. BL11 SAC membership

| | Gender | Nationality | Chair-person | Member | Observer | Discipline |
|---------------------------|--------|---------------|--------------|--------|----------|--|
| Dr Mary AMUYUNZU-NYAMONGO | F | Kenyan | | x | | Anthropology |
| Professor Sharon FONN | F | South African | | x | | Health systems gender equity |
| Dr Margaret GYAPONG | F | Ghanaian | | x | | Social science |
| Prof. Mamoun M.A. HOMEIDA | M | Sudanese | x | | | Internal medicine, community health |
| Dr Charles HONGORO | M | South African | | x | | Public health policy |
| Dr Deborah MCFARLAND | F | American | | x | | Health economics |
| Dr Kopano MUKELABAI | M | Zambian | | x | | Health systems, child health |
| Dr Pierre ONGOLO ZOGO | M | Cameroon | | x | | Public. health |
| Dr Fred WABIRE-MANGEN | M | Kenyan | | x | | Public health, epidemiology, biostatistics |
| Dr Susan ZIMICKI | F | American | | x | | Social and behavioural Science |
| Dr Adrian HOPKINS | M | British | | | x | Ophthalmology, public health |

7.3. Details of revision of business plans

Revised BL11 document by SAC members (May 2008) attached.

7.4. Responses to Joint Coordinating Board / Scientific and Technical Advisory Committee requests

The Scientific and Technical Advisory Committee (STAC) recommended in 2008 that:

“The development of the science to enhance this line of enquiry needs to underpin this business line. It is a unique opportunity for TDR to synthesize data across lessons learnt to generalize what may be possible in other contexts.”

BL strategic objective 1 – “Develop an analytic framework for integrated community-based interventions” – is designed to respond to this STAC recommendation. The end product is expected in the last quarter of 2009.



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The Special Programme for Research and Training in Tropical Diseases (TDR) is a global programme of scientific collaboration established in 1975. Its focus is research into neglected diseases of the poor, with the goal of improving existing approaches and developing new ways to prevent, diagnose, treat and control these diseases. TDR is sponsored by the following organizations:

