

ANNUAL REPORT

1. BACKGROUND INFORMATION

Title of RPC: **Team for Applied Research to Generate Effective Tools and Strategies for Communicable Disease Control (TARGETS)**

Reference Number: **HD205**

Period covered by report: **June 2006 – May 2007**

Name of lead institution and Director: **London School of Hygiene and Tropical Medicine, Dr John Porter**

Key partners: **Centre for Health Research and Development, India
Ifakara Health Research and Development Centre, Tanzania
INDEPTH Network, Accra and worldwide
KNCV-Tuberculosis Foundation, Netherlands
Makerere Medical College and Infectious Diseases Institute, Uganda
The Zambian AIDS-related TB (ZAMBART) Project**

Countries covered by research so far: **India, Tanzania, Ghana, Uganda, Zambia, Malawi, The Sudan, Benin, South Africa, Argentina, Cuba, Peru, Brazil, Afghanistan, Pakistan, East Timor, Kenya, The Gambia, Cambodia.**

History of the LSHTM Malaria and TB Research Programmes that have created TARGETS

The Department for International Development (DFID) has supported research programmes at the London School of Hygiene and Tropical Medicine since 1990. The Malaria Programme ran from 1990 to 2005 and the TB Programme from 1995-2006. This long term support has helped to build strong teams of researchers in Malaria and TB both in the UK as well as with partners and institutions in other parts of the world. Capacity building and applied research have been important themes within both programmes.

The current DFID Communicable Disease Programme (TARGETS) has been created through the integration and amalgamation of staff and projects from previous Malaria and TB Programmes. In the creation of the current programme, DFID has asked the RPCs to focus on DFID's current research and policy priority - poverty and vulnerability. The competitive process laid down by DFID for its RPCs has provided an opportunity for the Malaria and TB groups to work together. Although the individual teams continue to work within targeted specific disease interventions, they come together to address the broad themes of poverty and vulnerability within the Millennium Development Goals (MDGs). This happens through the logframe focus on the knowledge generated outputs of: 1) scaling up of communicable disease programmes; 2) new tools and strategies for disease control; 3) vulnerability to disease and access to health care systems; and 4) monitoring and evaluation.

2. ONE PAGE SUMMARY

How far have intended outputs as listed in the logframe been achieved?

Knowledge generation has been achieved through the following indicators (OVIs):

- A. **Scaling up.** Achievements include: completion of an Insecticide Treated Nets (ITN) voucher study in Ghana and the first phase of TNVS (Treated nets Voucher Scheme) in Tanzania and an IPT trial on the effectiveness of IPT for children in Ghana.
- B. **New Tools and Strategies.** Achievements include: the results of a study on SP (Fansidar) in IPT in pregnancy, the results of which will influence IPT policy in Africa. A pilot study in Zambia on home based direct observation of treatment (DOT) was completed with over 80% of participants choosing treatment support through a family member. The safety and immunogenicity of a new meningitis vaccine (ACW135) will influence the strategy to control meningitis epidemics in Ethiopia.
- C. **Vulnerability.** Achievements include: an access to HIV care study in three states in India was completed. In Zambia, both a TB prevalence and indepth case control study of infectious TB cases was linked into the 2000 Census for Lusaka province to assess the impact of poverty at community level.
- D. **Monitoring and Evaluation.** Achievements include a study estimating the burden of malaria attributable anaemia in children in Sub-Saharan Africa which was completed and a report submitted to RBM/WHO. An assessment of communication strategies used for the ongoing Tanzanian voucher scheme. A powerful and growing resistance was uncovered in Benin that undermines the effectiveness of ITN; major funding was secured to develop with industry alternative insecticides to the pyrethroids.

Knowledge dissemination has been achieved through the following indicators (OVIs):

- 1) Effective partnerships eg ; Ifakara network between TNVS monitoring and evaluation research team and other contractors within the scheme maintained by the MoH;
- 2) Research questions being defined by stakeholders: eg all MAAS-CHRD projects address stakeholder needs;
- 3) Through user involvement in studies: eg At KNCV, studies have study teams that comprise of persons directly from or linked to the NTLP (Laboratory, National Institute of Medical Research, Muhimbili); and
- 4) Through dissemination and implementation of projects: eg Zambia, ZAMBART/ZAMSTAR feedback meetings on Tuberculin Skin Test (TST) survey and other baseline studies in late 2006 with dissemination through Community Advisory Boards to district health teams and through a ZAMSTAR national dissemination meeting in October 2006.

What is the impact of the research programme so far?

A story that provides a good overview of the achievement of the programme is the work of the Highland Malaria project (HIMAL) which links local needs with national and international malaria priorities. This project has led to direct changes in the ways in which malaria control programmes monitor malaria in areas of Kenya and Uganda. In Kenya the ministry of health is currently using GFATM funds to scale up specialized malaria monitoring systems in all its epidemic-prone districts. This whole process is based on a model of surveillance developed and piloted within TARGETS:-

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2. KEY THEMES

(A written description of the information provided in the logframe below begins on page 9. The logframe information will be downloaded directly onto the DFID RPC website.)

Theme 3i: What are the research outputs?

Output 1 of TARGETS' log frame relates to knowledge generation. The list in the table below is illustrative, rather than exhaustive. A more detailed list which contains all the information reported by the partner organisations and individual researchers is available.

Note: Numbers in progress column relate to project numbers in the TARGETS activity plan 2007-08 submitted to DFID on 31st January.

Q. WHAT PROGRESS HAS BEEN MADE ON KEY PROGRAMME OUTPUTS?

Outputs	Verifiable Indicators (OVI)	Progress	Recommendations/Comments
New knowledge for taking interventions to scale and improving access for vulnerable groups.	Decision support tools for taking interventions to scale; reports on new approaches to improving access.	<p>Malaria studies in progress:</p> <p>ITNs and IRS</p> <ul style="list-style-type: none"> - Data collection for monitoring and evaluation of a voucher scheme in Ghana and first phase of TNVS in Tanzania completed. Analysis and reports to be finalised and disseminated. Costing study to be completed. (12.7, 12.8) - A retail survey on the availability of ITNs was undertaken in 3 provinces of Mozambique. Data analysis underway. (12.15) - Costed strategy for protecting all vulnerable groups in Africa with ITNs developed. Peer reviewed publication in preparation. (12.18) - A series of new long-lasting insecticidal nets and treatments developed by chemical/textile industry were evaluated and for approval by WHO. - Novel insecticides were evaluated under controlled conditions against pyrethroid resistant and susceptible vectors at field sites in Tanzania and Benin. Several promising new insecticides were identified for use on ITN and IRS and commitments obtained from industry. <p>IPT</p> <ul style="list-style-type: none"> - Ongoing development of decision support algorithm tool. Results for severe malaria, mortality and anaemia completed. Development of matrix of transmission intensity and seasonality ongoing. (12.11) 	<p>Preliminary findings fed back to stakeholders and have informed ongoing development of programmes. Ghana monitoring paper published in Malaria Journal.</p> <p>Preliminary findings fed back to stakeholders. Full report in preparation.</p> <p>Strategy presented by WHO at a 'High Level Meeting'. Document published on WHO website.</p> <p>Two new LLIN and LL treatments obtained WHO approval and will help remove the bottleneck in supply and add significantly to the volume of LLIN available for scaling up. Reports published.</p> <p>Major grants were secured from BMGF to develop new insecticides and insecticide combinations to combat the growing problem of pyrethroid resistance.</p> <p>Results presented at IPTi Consortium meeting. Interim report to BMFG.</p>

		<ul style="list-style-type: none"> - Review undertaken using secondary data analysis to question the assumption that EPI is the most appropriate delivery system for IPTi in areas of seasonal transmission. - Trial on the effectiveness and cost effectiveness of IPTc in Ghana completed. Data analysis underway. (12.16) <p>Malaria chemotherapy</p> <ul style="list-style-type: none"> - The efficacy and safety of Lapdap for treatment of vivax malaria was demonstrated in a trial conducted in Afghanistan - Trials showed the supposed inherent resistance of vivax to SP was shown not to apply in South Asia - Trial showed a new radical treatment of vivax malaria using weekly doses that is much safer than current treatments. <p>TB studies in progress:</p> <p>Training for operational research and resource allocation</p> <ul style="list-style-type: none"> - Action Research Unit scaled up to district and national levels of TB control in Zambia. (1.3) <p>ZAMSTAR Prevalence surveys</p> <ul style="list-style-type: none"> - 4 prevalence surveys in Zambia and South Africa demonstrate that although most (75%) of patients with prevalent tuberculosis in the community do indeed have symptoms, many have not been able (or chosen not) to attend the government health services and even those that have attended have not always been diagnosed correctly. As a result, there is a substantial burden of infectious TB that is not touched by the DOTS strategy. As TB control is scaled up, innovative approaches to involve communities in finding cases will be needed. 	<p>Paper in press in TMIH.</p> <p>Abstract accepted for presentation of cost effectiveness at the iHEA.</p> <p>In the post-chloroquine era, effective and harmonised monotherapy of vivax and falciparum malaria is feasible with cost-effective SP or lapdap monotherapy even though combination ACT may be considered desirable against falciparum. Potential to reduce the latent hypnozoite vivax reservoir if adopted as policy by WHO (who sponsored the trial).</p> <p>Report of study findings fed back to key stakeholders.</p> <p>Disseminated to ZAMSTAR Study Advisory Board – senior officials from Ministry of Health, Provincial and Local Government Oral presentation at Paris IUATLD meeting November, 2006 Presented to CREATE Executive committee, which includes WHO TB/HIV department.</p>
<p>New tools and strategies for disease diagnosis, treatment and prevention and overcoming obstacles to scaling-up.</p>	<p>Reports on the efficacy of new tools and strategies, and of their effectiveness under field conditions.</p>	<p>Malaria studies in progress:</p> <ul style="list-style-type: none"> - Intermittent preventive treatment (IPT) in infants, - IPT in <5 year olds - Replacing SP in IPT during pregnancy <p>TB/HIV studies in progress:</p> <ul style="list-style-type: none"> - Pilot studies on home-based DOT completed. Protocol on cross-sectional extension to the study finalised with stakeholders. - Development of guidelines and tools for a public private coordination model is currently underway (India). - Comparison of rapid tests for detecting MDR-TB 	<p>Results to be disseminated in 2008. Results to be disseminated by December 2007. Results to be disseminated by October 2007 will influence the IPT in pregnancy policy in Africa.</p> <p>Home-based DOT chosen by 83% of all new TB patients in all three districts combined. Over 80% of chosen treatment supporter was a family member and in 10% of cases the spouse. Treatment outcome data not yet available.</p> <p>Involving private medical practitioners, laboratories, NGOs, public sector facilities and providers and PLHA networks the project has identified issues around partnership from the perspective of both public and private sector providers. Reports produced and study findings presented at national conference.</p> <p>Direct application of liquid culture system (BACTEC 460) to sputum was selected as preferred test for screening suspected MDR-TB patients in Kampala.</p>

		<ul style="list-style-type: none"> - Evaluation of microscopists as a health care cadre to alleviate the human resource crisis in laboratory services in Zambia. <p>Meningitis</p> <ul style="list-style-type: none"> - Safety and immunogenicity of a new meningitis vaccine (ACW135) (Ethiopia). 	<p>Curriculum designed by ZAMBART in partnership with Ministry of Health. First cohort of trainees evaluated in clinics and information presented at National Research Conference at request of MoH. As a result, the programme is now being rolled out to all clinics and should be expanded to include malaria as well.</p> <p>Results to be disseminated by December 2007 will influence the strategy to control meningitis epidemics.</p>
New knowledge on risk and vulnerability and how it can be used to target interventions.	Disease specific guidelines for risk mapping and targeting strategies. Tool kits for rapid assessment.	<p>Access to HIV Care India: Study on Access to HIV Care for People Living with HIV/AIDS in three states of India completed; results presented at National Conference on Research in HIV/AIDS in April 2006. Dissemination report has been prepared and widely distributed to stakeholders at international, national and district levels.</p> <p>Access and Poverty: Zambia: In two poor communities with high HIV prevalence, both a TB prevalence survey (ZAMSTAR 2005-6), and an in-depth case control study of infectious TB cases (2006-7), will integrate findings with the 2000 Census dataset for Lusaka Province in order to assess the impact of poverty at community level.</p> <p>Tanzania: Plan to assess poverty in poor districts by integrating population based prevalence studies of TB with more indepth poverty analysis.</p>	<p>Study highlights the barriers for vulnerable groups (e.g. widows and migrants) in accessing services for diagnosis of HIV, treatment of opportunistic infections and ART in the public and private sector.</p> <p>In order to understand the relationship between TB and poverty, preliminary analyses suggest that individual socioeconomic characteristics within a poor community may have less influence on TB prevalence than wider structural factors and inequities (eg. lack of transport, schools, health care infrastructures). This underscores the political-economic approach to reducing TB transmission through addressing these inequalities. In these two poor communities outside Lusaka, the prevalence of infection with <i>M.tuberculosis</i> defined by a gamma-interferon release assay is as high as 50% in adults controls selected in the community. The prevalence of MGITculture positivity is alarmingly high (>2%).</p> <p>A combination of methods are needed to assess poverty and TB; i.e. a prevalence survey combined with household and individual questionnaires which involve both quantitative and qualitative approaches and studies amongst different socio-economic groups.</p>
Indicators and tools to monitor and evaluate the impact of communicable disease programmes through existing systems.	Guidelines for measurement of morbidity attributable to communicable diseases, and for robust estimates of coverage and impact of control programmes and delivery systems.	<p>Malaria studies in progress: Estimating the burden of malaria attributable anaemia in children in Sub-Saharan Africa.</p> <p>An assessment of communication strategies used for the ongoing Tanzanian voucher scheme</p> <p>Surveys are underway in Benin and neighbouring W.African countries to determine the severity, scale and distribution of the recently-uncovered pyrethroid resistance.</p> <p>TB/HIV studies in progress: Molecular epidemiology of TB in a rural African setting.</p>	<p>A report was submitted to RBM/WHO and the results presented at WHO Geneva.</p> <p>A questionnaire and interview guide have been developed and data collection, processing and analysis are underway.</p> <p>A high impact paper was published showing that ITNs and indoor residual spraying with pyrethroids no longer protect against <i>Anopheles gambiae</i> in Benin. A workshop was held at BMGF Foundation to review the situation and decide on next steps.</p> <p>Laboratory studies have been undertaken to provide data on the interactions of HIV and TB strain type during the early phase of the HIV epidemic.</p>

Knowledge disseminated and adopted in policy and practice:

Q. WHAT PROGRESS HAS BEEN MADE IN KEY PROGRAMME OUTPUTS?

Outputs	Verifiable Indicators (OVI)	Progress	Recommendations/Comments
<p>Effective partnerships within TARGETS and with policy makers, programme and district managers developed.</p>	<p>Strengthened network of collaborating researchers and research users.</p>	<p>MAAS-CHRD: A memorandum of understanding (MoU) was signed to help formalise the collaboration with LEPRAs Society. The first collaborative study on establishing public-private partnerships for effective management of HIV, TB and co-infection is currently underway.</p> <p>KNCV: Continued direct communication with Programme manager NTLP.</p> <p>Ifakara: The good network between TNVS monitoring and evaluation (TNVS M&E) research team and other contractors within the scheme and Ministry of Health is maintained.</p> <p>Working with INDEPTH Secretariat and sites to develop a project proposal to Wellcome on “The Effect of Geographical Access to Healthcare on child mortality” (Ilona Carneiro)</p> <p>ZAMBART due to revise MoUs with University of Zambia & Ministry of Health, reflecting widening scope due to new grants. STAMPP (2006-2011) is an intervention & research partnership with CARE Zambia, Society for Family Health and ZAMBART in 6 provinces.</p> <p>ZAMSTAR in Zambia is situated in seven districts – MoUs’ have been drawn up with all district health management teams. In Western Cape, work closely with Provincial TB programme.</p> <p>EFA (2006-2011) widens ZAMBART’s partnerships internationally and nationally.</p> <p>Makerere: The commissioner of Planning at MoH was our link person for dissemination of U5Mortality Research study.</p>	<p>Our partnerships with NGOs at the state and district levels offers us the opportunity to extend our work beyond Pune, Mumbai and Maharashtra to Andhra Pradesh, Orissa, Tamil Nadu, Bihar and Madhya Pradesh. Our focus through these partnerships has been to develop and/or strengthen the capacity of the NGOs to conduct quality OR and thereby generate evidence to influence programme and policy.</p> <p>This is the modus operandus of KNCV Tuberculosis Foundation. We give assistance directly to the NTLP through identifying research needs in communication with NTLP.</p> <p>None.</p> <p>MoU’s help clarify relationships with policy makers, programme and district managers but are not legal documents. What seems to matter more perhaps is an active and respectful working relationship between ZAMBART staff and government. Relationships with other programmes – e.g. CARE Zambia – can be complicated by the different approaches of researchers and programmers and by poor co-ordination at a district level between stakeholders. The latter means that it is also easy to replicate the same exercise carried out by other stakeholders e.g. gathering baseline data on TB and HIV services.</p> <p>Data disseminated and MoH requesting that we present the data to top management (politicians, technical) at the MOH.</p>

Research questions defined to meet stakeholders' needs.	Percentage of studies responding to stakeholder concerns.	<p>MAAS-CHRD: 100% - all our current studies address stakeholder needs.</p> <p>ZAMBART: Drug Resistance Study (planned) & training microscopists directly meet stakeholders needs (level of DR & national shortage of lab staff).</p>	<p>The study on improving and sustaining private sector participation in TB control addresses the programme need to undertake OR for initiating interventions</p> <p>Easier to achieve this in a genuine way through smaller studies with tighter timeframes and smaller budgets & through RPCs than through a clinical trial or an intervention grant i.e. EFA and TARGETS much more flexible and able to respond to emerging research questions than ZAMSTAR or STAMMP whose design and outcomes are necessarily more set in stone.</p>
Potential users involved in planning, reviewing, implementing or interpreting studies.	Percentage of studies with user involvement in each aspect.	<p>KNCV: All studies have study teams comprising of persons directly from or related to the NTLP (laboratory, National Institute of Medical Research, Muhimbili University). These study teams are involved in the full process from designing the study (protocol writing) to interpreting the results.</p> <p>Makerere: Manager Malaria control programme to support the study with free Coartem.</p>	<p>The main activity of the KNCV is to advise and support the study teams in study activities.</p> <p>The decision to add, delete or modify research questions rests fully with these teams chaired by the programme manager directly.</p> <p>The members of the study teams are chosen based on their expertise and knowledge, giving them a firm voice in study preparations.</p> <p>Manager already written letter to National Medical Stores to supply us with Coartem.</p>
Dissemination plan for each study, which is implemented.	Percentage of studies whose findings have affected policy and practice.	<p>Ifakara: TNVS M&E study results have influenced implementation contractors in shaping their practice such as voucher distribution, training and promotion. For instance, following the 2005 finding that less than half of eligible women were receiving vouchers upon presentation at ANC, implementers organised re-training of health staff. In 2006 the proportion of women receiving a voucher had increased to 70%, and nearly 80% in those areas which had been implementing for >12 months.</p> <p>ZAMBART/ZAMSTAR: feedback meetings on TST survey results to districts and feedback of community profiles through Community Advisory Boards (with aid of flyers) carried out mid to late 2006.</p> <p>ZAMSTAR national dissemination meeting October 2006.</p>	<p>We need to maintain the dissemination of study findings in time and user friendly language to the non- research users.</p> <p>It proves hard to find the resources and to have the right skills to facilitate dissemination effectively. E.g. at national level, dissemination meetings are extremely expensive (costing in the range of US\$20,000 for ZAMSTAR national dissemination meeting) and producing a working report of findings in a user-friendly format is expensive and needs particular programmes and skills. At community level, it would have been better to hold half-day workshops to reflect on findings and determine subsequent action, but this was not affordable.</p>

Q. WHAT PROGRESS HAS BEEN MADE IN TERMS OF PURPOSE?

Purpose	Verifiable Indicators (OVI)	Progress	Recommendations/comments
<p>To assist key stakeholders to improve the health of the poor and vulnerable through effective and sustainable communicable disease control.</p>	<p>Reduced morbidity and mortality from communicable diseases.</p> <p>Better coverage and effectiveness of communicable diseases control programmes.</p>	<p>MAAS-CHRD: Our baseline study on access to TB care in Mumbai has helped in identifying vulnerable groups who may have problems in accessing TB care. This has resulted in the NGO implementing the Urban DOTS Project and proposing strategies for improving access for these vulnerable groups, to the key stakeholders.</p> <p>KNCV: Preliminary results of Home-based DOT have led to expedited scaling-up of the intervention.</p> <p>Ifakara: ITN coverage of target groups nearly doubled between 2005 and 2006 (for example among pregnant women from 11% to 18%).</p> <p>ZAMBART: Descriptive study on TB and gender highlighted that gender differentials in TB control in Zambia exist. A prospective study to understand gender-related barriers will be undertaken later this year.</p> <p>Training and evaluation of TB microscopists to improve access to TB diagnosis and alleviate the current human resource crisis in the health sector in Zambia completed.</p> <p>ZAMSTAR: Implementing interventions to reduce TB from July 2006 in 24 sites in Zambia and Western Cape, South Africa.</p> <p>Makerere: Improve coverage with ITNs especially for pregnant women and children below five years.</p>	<p>DRS will advise on the extent to which DOT-plus activities have to be scaled-up.</p> <p>We will have a better idea about this after the MoH report on national morbidity and mortality position.</p> <p>Scaling up of the training and deployment of TB microscopists country wide expected to commence with funding from the Global fund. Other stakeholders (CIDRZ, and DHMT in Southern Province) are ready to adopt the training package for microscopists.</p> <p>Management of large-scale interventions challenging, particularly in relation to administration, training and finances. Decentralising, capacity building and regular quality assurance help standardise interventions.</p> <p>The country and partners plan to purchase more than 5 million ITNs.</p>

Themes 3i: What are the research outputs? (3 pages)

The information presented in the logframe below is a sample of the data generated by these teams. Where possible information has been provided to give a flavour of the work being conducted by each of the partners and also by individual researchers. This information focuses on the main achievements at this point in time from all the projects that relate to these themes.

Generation of new knowledge:

Q. What progress has been made on key programme outputs?

Below is a list of examples of new knowledge generated during the year through the lens of each output theme:

1. Knowledge generated (*Verifiable indicator (OVI) – individual projects feeding into final reports at the end of the programme*):

A. Taking interventions to scale (*OVI: decision support tools*)

- Insecticide Treated Nets (ITNs): Data collection for monitoring and evaluation of a voucher scheme in Ghana and the first phase of TNVS in Tanzania have been completed and preliminary findings fed back to stakeholders.
- Intermittent Preventive Treatment (IPT): Trial on the effectiveness and cost effectiveness of IPTc in Ghana completed. Data analysis underway. Findings fed back to stakeholders.
- TB: action research unit scaled up to district and national levels of TB control (Zambia)

B. New tools and strategies interventions (*OVI: Reports on efficacy and strategies*)

- Replacing SP in IPT during pregnancy. Results to be disseminated by October 2007 to influence the IPT in pregnancy policy in Africa.
- The potential of new insecticides - chlorfenapyr, indoxacarb and chlorpyrifos methyl - to overcome pyrethroid/DDT resistance that threatens global MCPs was demonstrated as ITN or IRS treatments in Benin.
- In collaboration with WHO we established through field trials in Tanzania that the LLIN 'Interceptor' (BASF) and long lasting treatment 'KO-Tab 1-2-3' met the required criteria and were duly approved for procurement by governments and agencies. These are now being bought in hundreds of thousands.
- In Zambia, pilot studies on home based DOT completed. Protocol on cross sectional extension to the study finalised with stakeholders. Home based DOT chosen by 83% of all new TB patients in all three districts combined. Over 80% of chosen treatment support was through a family member.
- Safety and immunogenicity of a new meningitis vaccine (ACW135) in Ethiopia. Results are to be disseminated in December 2007 which will influence the strategy to control meningitis epidemics.

C. Vulnerability (*OVI: Disease specific guidelines*)

- Access to HIV Care: In India a study on Access to HIV Care for People Living with HIV/AIDS in three states of India completed; results presented at National Conference on Research in HIV/AIDS in April 2006. Dissemination report has been prepared and widely distributed to stakeholders at international, national and district levels.
- Access and Poverty: In Zambia in two poor communities with high HIV prevalence, both a TB prevalence survey (ZAMSTAR 2005-6), and an in-depth case control study of infectious TB cases (2006-7), will integrate findings with the 2000 Census dataset for Lusaka Province in order to assess the impact of poverty at community level.
- Tanzania: Plan to assess poverty in poor districts by integrating population based prevalence studies of TB with more indepth poverty analysis. Study delayed until October 2007.

D. Monitoring and Evaluation (*OVI: Guidelines and delivery systems*)

- Estimating the burden of malaria attributable anaemia in children in Sub-Saharan Africa. A report was submitted to RBM/Who and the results presented at WHO Geneva.
- A new form of pyrethroid resistance in *An. gambiae* was uncovered against which ITN and IRS offer little or no protection. It appears widespread in Benin. With the proposed scale up of LLIN it will intensify and probably spread to neighbouring Nigeria and Ghana.
- An assessment of communication strategies used for the ongoing Tanzanian voucher scheme. A questionnaire and interview guide have been developed and data collection, processing and analysis are underway.
- TB/HIV studies in progress: Molecular epidemiology of TB in a rural African setting. Laboratory studies have been undertaken to provide data on the interactions of HIV and TB strain types during the early phase of the HIV epidemic.

2. Knowledge disseminated (examples are given below):

2.1 Effective partnerships within TARGETS and with policy makers, programme and district manager developed (*OVI: Strengthened network of collaborating researchers and research users*)

This is an important part of the communication strategy which is being tackled both from the top (LSHTM administrative team and researchers with international links) as well as from the bottom (partner links with local and national stakeholders). Partners and individual researchers have created a broad web of contacts at local, national and international levels. Below are some examples of these partnerships:

At the local level, MAAS-CHRD has made a memorandum of understanding with LEPRO India, and important national communicable disease NGO. At the national level, KNCV has strong links with the NTLP Programme Manager in Tanzania. At

Ifakara there is a good network between TNVS monitoring and evaluation research team and other contractors within the scheme maintained by the MoH. At Makerere, the Commissioner of Planning at MoH was the link person for dissemination of the under 5 year mortality research study.

2.2 Research questions defined to meet stakeholder needs (OVI: Percentage of studies responding to stakeholder concerns)

At MAAS-CHRD, 100% of current studies address stakeholder needs. In Zambia, the Drug Resistance Study (which is being planned) and training microscopists directly meet stakeholder needs.

2.3 Potential users involved in planning, reviewing, implementing or interpreting studies (OVI: Percentage of studies with user involvement in each aspect)

At KNCV, all studies have study teams that comprise of persons directly from or linked to the NTLP (Laboratory, National Institute of Medical Research, Muhimbili). These study teams are involved in the full process from designing the study to interpreting the results. At Makerere, the manager of the malaria programme is supporting a malaria study by providing free Coartem.

2.4 Dissemination plan for each study which is implemented. (OVI: Percentage of studies whose findings have affected policy and practice)

At Ifakara, the TNVS study results have influenced implementation contractors by shaping their practice such as voucher distribution, training and promotion. For instance, following the 2005 finding that less than half of eligible women were receiving vouchers upon presentation at the antenatal clinic (ANC), implementers organised re-training of health staff. In 2006 the proportion of women receiving a voucher had increased to 70%, and nearly 80% in those areas which had been implementing for >12 months.

In Zambia, ZAMBART/ZAMSTAR feedback meetings on Tuberculin Skin Test (TST) survey results to districts and feedback of community profiles through Community Advisory Boards (with aid of flyers) was carried out mid to late 2006. A ZAMSTAR national dissemination meeting occurred in October 2006.

Q. What progress has been made in terms of purpose?

Purpose: To assist key stakeholders to improve the health of the poor and vulnerable through effective and sustainable communicable disease control.

The creation and structure of the programme is focussed particularly on local and national stakeholders. Certain partners also focus on international stakeholders, in particular staff at LSHTM and also at KNCV. All projects were created with a broad focus on 'poverty' and the Millennium Development Goals (MDGs) and results from these projects feed into local, national and international debate on communicable diseases, in particular malaria and TB. Below are some examples from partners on their links with stakeholders on issues of poverty and vulnerability.

- At MAAS-CHRD a baseline study on access to TB care in Mumbai has helped to identify vulnerable groups who may have problems accessing TB care. This has resulted in the NGO implementing the Urban DOTS Project that proposes strategies for improving access for these vulnerable group to the key stakeholders.
- At KNCV, preliminary results from the Home-based DOT project in Tanzania have led to expedited scaling up of the intervention. The DRS will advise on the extent to which DOT-plus activities have to be scaled up.
- At Ifakara in Tanzania, ITN coverage of target groups nearly doubled between 2005 and 2006 (for pregnant women from 11% to 18%) and this information is now being linked to the MoH report on the national morbidity and mortality survey.
- At Makerere they are also working to improve ITN coverage especially for pregnant women and children less than five years of age. The management of this large scale intervention is proving to be challenging, particularly in relation to administration, training and finances.
- In Zambia a descriptive study on TB and gender was completed that highlighted gender differentials in TB control. Training and evaluation of TB microscopists is underway to improve access to TB diagnosis and to help alleviate the current human resource crisis in the health sector.

Q: What evidence is there for interaction with policy makers and other stakeholders?

Below are examples of interactions with policy makers and stakeholders from the bottom up, local to national to international:

LOCAL LEVEL:

- In Uganda, Fred Nuwaha at Makerere nominated on the MoH task force to guide Ministry of Health on Use of ACTs in private not for profit sector.
- In India, a Memorandum of Understanding was signed between MAAS-CHRD and: 1) LEPRAS Society and 2) with the Revised National TB Programme in Pimpri Chinchwad Municipal Corporation
- In Tanzania, within the home-based DOT study, the KNCV Tuberculosis Foundation serves as a member of the advisory board. In this capacity methodological issues on design, implementation, and monitoring are discussed.
- In Zambia, ZAMSTAR monthly meetings with CDC, WHO, National TB Programme manager and the National Reference Laboratory.

NATIONAL LEVEL:

- MAAS-CHRD work with the Indian National AIDS Control Programme in developing the Tribal Action Plan for the National AIDS Control Programme.
- KNCV Tuberculosis Foundation assures direct communication with the primary stakeholder through its advisory role to the NTLF of Tanzania.

- Ifakara has formal meetings with National Malaria Control Programme (NMCP) and their contractors at each point when there are new results available (e.g. meeting in August for sharing findings of the qualitative investigations; they asked for copy of the study reports for their follow-up). Awarded a tender to conduct consultant service for M&E in TNVS Phase2. This provide us with a measure of how useful they find the M&E activities
- DFID Ghana and partner Royal Netherlands Embassy were to use the report on outcomes of the ITN voucher scheme in Ghana in supporting the National Malaria Control Programme in development of a new ITN strategy (Jayne Webster).

INTERNATIONAL LEVEL:

- Because of the experience of NTLP and KNCV Tuberculosis Foundation in tuberculin surveys in Tanzania and prevalence surveys in general, both institutions were invited to take part in the discussion on measuring impact of TB programmes in Geneva (June 2006). In this meeting policy makers from WHO, CDC, IUATLD, and several NTP's discussed freely the way forward and identified research to be done.
- In September 2006 Jon Cox attended a joint WHO-WPRO and WHO-SEARO planning meeting on guiding regional risk mapping and burden estimation activities. Jon Cox also attended a subsequent meeting at WHO-HQ in March 2007 to discuss appropriate methodologies for deriving national risk/burden estimates.
- Jayne Webster was *rapporteur* at the first meeting of the WHO Technical Expert Group on ITNs.
- In India, Daniel Chandramohan chaired a mission to evaluate the National vector Borne Disease Control programme of India.
- Mark Rowland was *rapporteur* at WHO Pesticide Evaluation Scheme meetings for a) developing guidelines for evaluation of vector control products against malaria, b) approving vector control products including LLIN.
- ZAMBART hosted "learning visits" for Melinda Gates and for Bill Gates Sr. to learn about the challenges of tuberculosis control in resource poor settings.
- Peter Godfrey-Faussett was a participant and co-chair on the Scientific Working Group organised by WHO-TDR to determine TDR's Research priorities for tuberculosis for the next five years
- PGF remains Chair of the Technical Review Panel of the Global Fund and a member of the TB/HIV core group of the Stop TB partnership.

Good communication of results

Q: Is your research reaching the targets set out in your Communication Strategy?

Research findings are being disseminated locally, nationally and internationally. The local focus relates to individual partner communications strategies. The broader communication theme of the programme developed during the inception phase (researcher to researcher communication; and researcher to practitioner communication) assists in helping to ensure that information is translated and expressed from the local level to the national and international. The LSHTM administrative team is continuing to

develop ways of improving links and discussion between partners (eg database; quarterly newsletter; internet discussion; workshops; exchanges between partners). Below is an example of how research in a partner organisation involves stakeholders and reaches target audiences:

- The ZAMSTAR study successfully held a dissemination meeting (October 2006) for stakeholders from around the country to disseminate findings of the prevalence survey, community profiles and the tuberculin surveys. Other communication means included presentation of findings at the International AIDS conference in Toronto Canada and the International Union Against TB and Lung Diseases. Presentations were also made at the National Health Research Conference held in Lusaka, January 2007 and meetings with DHMTs and Community Advisory Bodies (CABS) are regularly held. Publication in peer reviewed journals (GB, HA, MM, PGF, RMc). Application to Bill & Melinda Gates Foundation to fund an advocacy post in ZAMBART and to support some advocacy activities has been successful. Currently, lack the appropriate skills and short of resources to pursue an innovative and effective communication approach at the community level; more effective at the policy and district level.

Q: Have you faced any particular challenges or successes in implementing your communication strategy?

Examples of challenges in implementation:

- MAAS – CHR D: In Mumbai, our baseline study for the GFATM funded Urban DOTS Project was initiated in collaboration with Inter Aide and the Mumbai District TB Control Society. The study design and the interim findings were presented and accepted by the collaborators. But when the final report was being prepared, there was a change in programme leadership. The new TB programme manager does not accept some of the study findings which point to the need for interventions on the part of the programme.
- Makerere Uganda: Successes: Been able to reach the top people at the MOH. Challenges: Time is a major constraint and often appointments are cancelled at very short notice.

Q: Have any other changes been made to the Communications Strategy other than those described above?

The communication strategy within the programme continues to evolve through a dynamic ‘bottom-up’ management and reporting process. Interesting challenges and frictions arise when ‘top down’ meets ‘bottom up’ (for example, when DFID requests summary information from TARGETS) and these challenges help us to focus on important communication issues within the programme and between the programme and its stakeholders at local, national and international levels. The main additions/changes to the strategy during 2006/7 include:

- 1) Each partner has created their own individual communication strategies for each (See Project 87 on the database);
- 2) Each partner now has a ‘link person’ from LSHTM whose responsibility is to communicate and report back from partners at meetings, and

to assist partners with any problems that are arising in country: Tanzania: Jo Lines; Uganda: Ruth McNerney; Zambia: Peter Godfrey-Faussett; India: John Porter; and Ghana: Daniel Chandramohan. 3) As part of the focus on the log frame and the four 'knowledge generated outputs', teams of researchers have been allocated to focus, report and communicate on each of the themes: Theme 1: Scale up – Jayne Webster (Director), Caroline Jones.....; Theme 2: Tools – Ruth McNerney (Director), Jon Cox, Daniel Chandramohan, Mark Rowland.....; Theme 3: Vulnerability – Ginny Bond (Director), Karina Kielmann (Director), John Porter.....; Theme 4: Monitoring – Ilona Carneiro (Director), Jo Lines, Peter Godfrey-Faussett...

These groups were created through a top down approach following a yearly TARGETS meeting at LSHTM to review the log frame and progress. Partners were not involved in allocating staff to the groups. The bottom up link will happen at the October Biannual meeting of partners where individual researchers from the partners will be integrated into the 'theme teams'!

Theme 3ii: What are the research impacts?

Policy and poverty impact

TARGETS was created to focus on poor and vulnerable populations. By the nature of their effects on individuals, communicable diseases like malaria, TB and HIV have a major impact on the socioeconomic wellbeing of families and communities. Interventions to reduce/eliminate/ eradicate these diseases have a profound impact on poverty and economic growth.

Below are examples of programme work that has/is making a poverty and policy impact:

- Poverty impact: 'The MAAS –CHRD study on access to HIV care conducted between 2005/7 highlights the barriers to accessing the free antiretroviral treatment (ART) roll out in the public sector and the direct and indirect costs that poor patients bear during the process of registration. These findings made an impact on programme and UNAIDS officials at the National Conference on Research in HIV/AIDS. Subsequently the Indian ART programme has made special efforts to ensure patients do not have to pay for CD4 count tests, which were earlier not offered free of cost by the programme'¹.
- Policy impact: At Ifakara, the malaria research conducted within TARGETS (eg Voucher scheme for bednets) is contracted by the Ministry of Health and results are fed back promptly and directly to the Ministry and other implementing partners. As such there is excellent scope for results to be translated quickly into practical action that benefits the populations at risk for example, pregnant women and children under five.

¹ Passages in “ are direct quotes received from partners

What methods are being used to collect and monitor baseline evidence in order to track programme impact on poverty?

Below are examples of tracking the impact on poverty:

- In Zambia and South Africa, an anthropological study of the converging impact of TB, HIV and food insecurity uses participant observation, household questionnaires, in-depth interviews (with the TB patients, primary care giver and key woman) and aims to document whether TB illness tips households into deeper poverty in one rural and one peri-urban site in Zambia and South Africa.
- In Uganda, the country carries out a Uganda Demographic and Health survey every five years and poverty is now currently mapped in the country regularly. It is hoped that the Makerere group will become involved in this process.

What evidence is there that policy makers and stakeholders have increased awareness of your research findings and that this has led to changed attitudes and practice?

Below are example of changes in attitudes and practice associated with TARGETS research:

- In Tanzania and Ifakara, the results of the repeated round of household survey on net coverage have kept an awareness that the scheme is working, although slowly, but the coverage was doubled. However the nation is yet to meet the Abuja target on net coverage to the vulnerable. Hence, more delivery strategies are needed to increase coverage rapidly and already the strategies are in place. The government under the Ministry of Health with the support of PMI implement two voucher schemes providing subsidised nets to infants and free nets to poor households with pregnant women and infants. Our findings have also drawn attention to the problem of net treatment. Planning for a national treatment campaign is underway.
- In Cambodia, (Jon Cox et al) recommended a change in national policy relating to the geographical targeting of malaria interventions, based on an analysis of data from the 2004 malaria baseline survey (itself carried out with technical support from TARGETS staff through the Malaria Consortium). Project outputs appear to have made a strong impact regionally and in September 2006 Jon Cox was asked to present the Cambodian experience at a WHO planning meeting in Bangkok in September 2006.
- In Benin, CDC (USA), IRD (France), IVCC (BMGF) are working collectively and individually on the pyrethroid resistance problem in collaboration with the MoH, GFATM and PMI (President's Malaria Initiative) to determine how best to respond to the problem in terms of proposed scale-up of ITNs and transmission control through IRS, what further research is required on impact or monitoring of impact and on new vector control products.
- The ZAMSTAR Study advisory board meeting is a small meeting, attended by the Permanent Secretary, Head of the Department of Medicine and National Programme Manager for tuberculosis as well as their equivalents from South Africa. As a result, at these regular investigators' meetings, the Ministry sees ZAMBART as a key partner for tuberculosis implementation research. They have recently rolled out the microscopists initiative and have asked us to conduct the next drug resistance survey, following the survey in 2000 which is the current baseline for knowing the level of drug resistance in the country.

What progress has been made in terms of north-south, south-south and south-north learning?

Below are examples of linked learning:

North-South:

- At Ifakara in Tanzania, a joint writing workshop was held in February 2007 in which staff from LSHTM and IHRDC discussed papers to be published from TNVS M&E data ; expected products of the workshop are four papers including a communication study paper funded by TARGETS.
- In a new contract with Pfizer Inc. (Closing the Malaria Treatment Gap) Jayne Webster and Caroline Jones will act as Global Advisors on Monitoring and Evaluation. Within this programme we are currently developing partnerships with programme implementers in Ghana, Kenya and Senegal, and also with local evaluation teams in each of these three countries. This will lead to partnerships and advisory roles with a minimum of six new developing country partners.

South – South:

- In March 2007, the ZAMBART team visited Pune (MAAS-CHRD) for 10 days during which ideas for research and ways of supporting each other's work were shared. Apart from developing concept notes and proposals for collaborative multi-country studies, there is a plan afoot to send the MAAS-CHRD team to visit Zambia to help in designing a study on gender differentials in accessing TB care.
- Daniel Chandramohan facilitated a workshop and on-site training on inspecting clinical trials of vaccines for regulators from six countries from Africa (Ghana, Burkina Faso, Mali, The Gambia, Ethiopia and Senegal)
- In situ teaching on MSc courses run in Benin and Tanzania by local universities (Mark Rowland).

South – North:

- LSHTM staff supervising Master and PhD candidates (eg staff from Zambart).
- Short Courses in Epidemiology at the LSHTM to be attended by staff from MAAS-CHRD.

North – North:

- LSHTM has trained epidemiologists at KNCV Tuberculosis Foundation in the use of ArcView for GIS analyses. This knowledge will be used in analysing data from the TB prevalence survey.

4. LESSONS LEARNT

Working with partners

Stories and anecdotes have been collected from partners about their experiences, both positive and negative. A few are listed below:

- MAAS-CHRD said 'It has been a satisfying and enriching experience'. However, one area where we have faced some problems is getting timely

feedback at times from our northern partners due to staff being heavily over committed.

- KNCV: ‘Involving a study team comprising of all relevant partners is essential for obtaining support for and commitment to the study.’
- Ifakara: ‘Initially partners were unsure about the role of monitoring and evaluation within the framework of national implementation. Time was taken to ensure that the global environment of increasing ITN coverage were understood. The role of M+E as an information tool rather than as an auditing process was emphasised’.
- Zambart: ‘The recent visit to Pune, India by two ZAMBART staff explored the possibility of partners in the consortium working together. By sharing information and research interests, it is feasible for partners in the consortium to work together on common projects and to develop collaborative grant proposals together. It was especially interesting to compare how to collaborate as researchers with government; this was much easier in Zambia and much harder in India due to scale, politics and the wider range and number of stakeholders in India’.
- From Zambia: ‘Capacity building through supporting or identifying further education opportunities, supervision, apprenticeship, journal clubs, writing workshops and seminar presentations are essential to maintaining a good relationship with partners. In Zambia, this has not happened at the pace anticipated by some senior Zambian researchers, which has caused tensions and undermined the motivation of academic staff.’

Good practice/innovation

- Ifakara: ‘Engaging with implementers of the system at all stages of this research has engendered trust and appreciation of the process. While retaining all independence, partners were invited to review survey tools prior to implementation.’
- From Zambart: ‘At a community level, training the members of ZAMSTAR’s community advisory boards (CABS) in Good Clinical Practice (GCP) was an innovation widely appreciated and well absorbed. CAB members said that although many had worked with researchers before, they had never before undergone ethics training and it helped them understand research and what informed consent meant.’

Project/programme management

- From MAAS-CHRD: ‘The promptness with which we receive help and guidance from the administrative team at the School and the flexibilities offered to us in terms of project and financial management has made working with TARGETS easy and pleasurable.’
- From KNCV: ‘Working directly with the primary stakeholder often introduces conflicts in time schedules with the research partners. A proper delegation of tasks to a study coordinator would be able to minimise this problem.’
- The ZAMBART Project has grown rapidly from a relatively small research project to a relatively large one, with 186 Zambian staff and 4 LSHTM staff working in six provinces with new offices to maintain. In November 2006, a local management consultancy helped ZAMBART to consider how to restructure in order to improve administrative and financial procedures and to

alleviate the administrative burden carried by senior ZAMBART staff, freeing the latter to do more academic activities. The restructuring involves disengaging the technical and administrative aspects of research, with a senior manager to oversee the administrative and finance core, and appointing a board to oversee and help direct ZAMBART research. This restructuring is currently in process.

Communication

Stories and quotes from the field:

- From MAAS-CHRD: ‘We have never had problems with communication with the team at the School. We now look forward to communication with our southern partners to help enrich our studies.’
- From Ifakara: Data collection by PDA has led to ‘fast track’ communication in two key areas. (1) Supervisors do daily digital downloads of data and, by running a summary programme, are able to review at a glance the daily achievements and areas for feedback to interviewers. (2) Final data is made available relatively quickly because there is no data entry requirement, resulting in quick feedback to partners.
- From Zambart: ‘Minutes of monthly management meetings held in London are circulated to all members of the consortium and communication by email ensures that consortium members participate in programme management. The use of the TARGETS Newsletter on a quarterly basis helps to inform partners of the projects being done by other partners. Exchange visits make communications between partners more meaningful and productive.’

5. PROGRAMME MANAGEMENT

How are researchable problems/themes being defined and prioritised?

Through the communication strategy and links with stakeholders. For example, at Zambart, ‘researchable problems are discussed with local stakeholders such as national programme managers and reference is made to national documents to ensure that the research is relevant to the programme and the country. Peer review of the TARGETS funded projects, help to ensure that the agreed research questions are relevant to the consortium. The design of the RPC allows for being flexible enough to respond to emerging research questions and to be able to contribute to building the research capacity of stakeholders.’

What mechanisms are there for partners to contribute to programme management?

Partners links to the central management of the RPC through the administrative team in London and the process of the communication strategy. (See communication strategy in appendix). When Zambart was asked this question they said ‘E-mail communications, consortium meetings in London’.

Have there been any changes to the programme during the reporting period?

The structure and partnerships remains the same. Professor Sandy Cairncross stepped down as the coordinator of the RPC in July 2006 and his position was filled by Dr John Porter. Clare Sullivan was appointed as the ‘communication officer’ in December 2006. Reported changes in local partner institutions include: KNCV - the study into diagnostic

delay has been cancelled due to lack of funding and possible interference with the TB prevalence survey.

How do these changes address gaps between achievements, outputs and purpose?

The scale and complexity of the RPC means that it requires a powerful management system with strong administration and communication. The communication strategy continues to evolve but more work is needed on the management structure. Because of the bottom up approach to the RPC it would be appropriate to try and provide more support to the partners and local stakeholders to improve knowledge dissemination and capacity building. We have begun to organise partner exchanges (eg Zambia and India) and we would like to do more of this. Also, organisation of workshops in partner countries.

Further work is needed on the following:

- Review of database of projects by the teams of researchers created to address each of the themes. Some projects have been completed and others that were considered in the inception phase have either not been funded or not taken up.
- Gaps around health systems need to be addressed and it is hoped that the appointment of Dirk Mueller will assist this process.
- The link between DFID and the RPC. It is hoped that partners will develop their links with local DFID offices.
- Preparation for the next Biannual Meeting in October 2007 to review the Mid Term Review and to prepare for the final three years of the RPC.

Have any key assumptions changed which lead to a re-assessment of risks?

The risk management plan created is for the TARGETS Consortium as a whole and not for each individual project. Details are included in Annex 3 (Risk Assessment).

Effectiveness of on-going monitoring arrangements.

An important link with partners is through budgets and the funds for local research projects (TARGETS Research Fund) which involves a process of review.

Progress of expenditure and steps taken to ensure research budget was fully spent. Any problems areas? Any significant changes in plan?

There has been little variation in expenditure during 2006-7. Delays in the start up of the TB prevalence survey has resulted in an under spend which is to be carried forward to 2007 /8 (see below for further details).

Has any multiplier funding been obtained? If so, summarise here and provide information in Annex 2.

Year two has seen over £5 million in additional external funding obtained for TARGETS activities. Details of this and of ongoing multiplier funding obtained are provided in Annex 2.

Comment on the pattern of expenditure by quarter and the reasons for any significant periodic concentrations of expenditure and significant under or overspends.

From KNCV: Given the delay of the TB prevalence survey, funds earmarked for capacity building were not used. Also the funds for a workshop for radiologists were not used because of this reason. Because the study will eventually start (October 2007) it is a mere delay of expenditure instead of cancellation of expenditure.

Staff changes:

Ms Clare Sullivan has replaced Ms Rhiannon Williams and has taken on the role of 'Communications Officer' for the programme within the administrative team.

Dr Dirk Mueller has replaced Dr Jolene Skordis as the economist/health systems person within the programme. He has already been working on Zambart projects but it is hoped that his skills in health systems research will help to provide a theme that unites several of the individual projects including theme 4 (monitoring and evaluation) that focuses on delivery systems. This work links with Daniel Chandramohan who is involved in several projects on systems delivery.

Links with other RPCs

The programme has links with the CREHS RPC (HD105: Consortium for Research on Equity and Health Systems CREHS) directed by Dr Kara Hanson, with HD3, the reproductive health and HIV consortium directed by Professor David Mabey and HD11 Evidence for Action, the consortium on equity and HIV) directed by Professor David Ross, which are all coordinated from the London School of Hygiene and Tropical Medicine. Professor Anne Mills at the London School of Hygiene and Tropical Medicine coordinates meetings of the different school consortia to discuss management issues and problems. TARGETS also has a strong link with the other communicable disease RPC at Leeds, HD26 Communicable Diseases: Vulnerability, Risk and poverty (COMDIS)

The link with CREHS is particularly important for the development of a 'health systems' theme within TARGETS.

The CAG

The CAG links the two communicable disease RPCs, COMDIS and TARGETS. The first meeting of the group occurred in September 2006 and more recently in Leeds in April 2007. In both meetings there have been very useful discussions around the focus of the RPCs. It has been particularly useful to have the opportunity to work with the DFID advisors.

Communication Strategy and the Name of the RPC

It has become increasingly clear that the name TARGETS, means little to people who are outside the programme and impedes communication on communicable diseases in general. This was discussed at the CAG and a decision was made to revert to the title 'DFID Communicable Disease Programme: TARGETS' within which there is a Malaria Programme and a TB Programme. This will help to ensure that people trying to access information about malaria and TB are connected to the TARGETS internet webpage.

6. MALARIA CASE STUDY

One example concerns the launch of the “KO-123” kit. This is a wash-resistant insecticide treatment designed for use in field conditions, which can be used on untreated nets in the field. It consists of conventional insecticide together with the same kind of resin as is used in the “Permanet” LLIN. This is an important technical breakthrough, because it allows a wash-resistant treatment to be applied to any net in almost any circumstances: by local net suppliers, net traders, and even net-owners at home. The first home-treatment kits, using ordinary insecticide, were developed by ourselves during a previous DFID research programme; now they are used in most major ITN programmes worldwide. More recently, as TARGETS, we have contributed in two ways. Firstly, we carried out a major series of technical tests of this new wash-resistant product, helping it to gain approval by WHOPEP in early 2007. Secondly, we have been campaigning for several years to raise awareness of the neglected importance of these local nets. This included a recent analysis of data from 26 African countries showing that more than 80% of the nets in household use had never been treated. The proportion of nets coming from local sources (rather than projects) was significantly and consistently higher in the poorest households. The manufacturer, Bayer, has confirmed that this report provided one of the main justifications for their decision to bring the product to market. The wider influence of this work can be seen in the change of attitude expressed in official statements from WHO, which for many years systematically neglected or under-estimated the importance of local nets. Now the WHO have issued a statement (which we did not help to draft!) drawing attention to the existence of (an estimated) 30 to 50 million untreated nets, which are currently in domestic use, and represent a major public health opportunity; it says that giving these nets a wash-resistant treatment would be “one of the most cost-effective interventions in malaria control today”.

ANNEXES

1. LOGICAL FRAMEWORK
2. FINANCIAL SUMMARY (including multiplier funding received)
3. RISK ASSESSMENT MATRIX
4. COMMUNICATIONS STRATEGY
5. PRODUCTS AND PUBLICATIONS

Key communication products produced and their target audiences

Theme 1 – Process and impact of taking interventions to scale

- . Peer reviewed publications for the year
- . Publication in press or submitted
- . Books or book chapters
- . Policy briefs
- . Publicity material
- . Website links
- . RPC reports
- . Dissemination events across partner countries and key people who attended.

Theme 2 – New and improved strategies and tools

- . Peer reviewed publications for the year
- . Publication in press or submitted
- . Books or book chapters
- . Policy briefs
- . Publicity material
- . Website links
- . RPC reports
- . Dissemination events across partner countries and key people who attended.

Theme 3 – Vulnerability: Better definitions & understanding of interactions

- . Peer reviewed publications for the year
- . Publication in press or submitted
- . Books or book chapters
- . Policy briefs
- . Publicity material
- . Website links
- . RPC reports
- . Dissemination events across partner countries and key people who attended.

Theme 4 – Methods of monitoring process & output in large programmes

- . Peer reviewed publications for the year
- . Publication in press or submitted
- . Books or book chapters
- . Policy briefs
- . Publicity material
- . Website links
- . RPC reports
- . Dissemination events across partner countries and key people who attended.

6. DEVELOPING CAPACITY