



# The Tr-Ac-Net Organization

## Transparency and Accountability Network

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## Malaria Metrics

### A component of Social Benefit Accountancy

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As some of you know, I am working with Tr-Ac-Net to develop a comprehensive system of Social Benefit Accountancy that expands regular enterprise accountancy beyond GAAP profit reporting to also incorporate social benefit impact. The Tr-Ac-Net IMMC Cost Effectiveness Model for Integrated Malaria Management (the model) is a part of this framework.

#### WHAT ARE WE TRYING TO ACCOMPLISH?

- To reduce the socio economic burden of malaria in the society
  1. Reduce (eliminate) mortality due to malaria;
  2. Reduce (eliminate) morbidity due to malaria;
  3. Reduce the cost of treating malaria cases;
  4. Minimize the cost of controlling malaria;
  5. To the extent that expenditures are needed ... give them the greatest development value.

#### RANGE OF POSSIBLE INTERVENTIONS

There are a number of things that can be done to achieve these goals:

- Medical:
  1. Treatment of active cases;
  2. Pre-emptive treatment of vulnerable groups;
  3. Screening to identify parasite carriers and treat.
- Vector control:
  1. Bednets (ITN);
  2. Indoor residual spraying (IRS);
  3. Source control (larvaciding);
  4. Mosquito control (ULV fogging);
  5. Entomological surveillance.
- Mobilization:
  1. Mobilization, relocation, setting up, getting started;
  2. Working capital ... inventory;
  3. Equipment.
- Support:
  1. Accounting and admin;
  2. Data collection and analysis ... data logistics;
  3. Maintenance and support services;
  4. Training.

#### PLANNING AND PROJECTIONS

Three simple questions:

- How much should all of the interventions cost?
- How much of these interventions are needed?
- What results can be expected?

#### ABOUT COST – Standard cost per unit of intervention

Standard costing is the analytical foundation, with each cost using a similar elemental structure:

1. labor related costs;
2. active materials (pesticides, larvacides, nets, drugs, etc.);
3. general supplies and operating expenditures;
4. equipment use costs; and
5. admin and support costs.

The unit of measure for any cost should be the one that is “natural” to the activity, product or service.

Thus, for example:

1. For bednets this might be a net;
2. for source control an area (maybe 100 sq metres);
3. for IRS an area (sq m of surface area treated ... or more roughly per structure);
4. for mosquito ULV spraying an area (maybe per acre ... or per km of road/pathway);
5. for medical treatment per case ... and so on.

## ABOUT HOW MUCH – Something that is location specific

How much of an intervention depends on what is going on with people, mosquitoes and malaria ... something that is a function of the human society, the physical geography, the environment and ecology and any ongoing or past malaria control or treatment interventions.

The model has a set of variable parameters to help make a crude set of estimates about how much ... how many ... of the interventions will be needed:

1. Population;
2. Area;
3. Weather conditions (by month);
4. % of parasite in the mosquito;
5. % of parasite in the human host population;
6. No. of malaria cases.

Using the standard cost and the estimated amount of intervention needed with the given conditions it is a simple calculation to arrive at projected costs.

In the model the projection is made by month for 5 years ... 60 months ... and then summarized by year.

## ABOUT RESULTS

For performance analysis and the determination of cost effectiveness it is the amount of results that matter. Results are:

1. How much do malaria cases go down;
2. How much does mortality go down;
3. How much does morbidity go down;
4. How much do lost workdays go down;
5. How much is parasite prevalence in the human population down; and
6. How much is parasite prevalence in the mosquito population down.

## HOW MUCH COST ... DOING WHAT ... GETS WHAT RESULT?

This is the critical relationship ... and the experts in the malaria community seem to know very little about it. For planning purposes and to make projections we need to know:

**If these conditions exist ---> and we do this, costing so much ---> the results will be.**

But worse ... the malaria community does now seem to be able to show historic data along similar lines:

**These conditions existed ---> We did this, costing this much ---> The results were.**

## NEXT STEPS – FOLLOW UP

Accordingly, I am appealing to the malaria community to start cooperating NOW so that these key data will be collected and be available for both academic research and for public information. Much of the needed data are already existing, but not organized into a form that can be easily used.

To the extent possible, please put Tr-Ac-Net in touch with the responsible people in each of your organizations. The Tr-Ac-Net IMMC Cost Effectiveness Model for Integrated Malaria Management described makes data a lot more useful for decision making and more valuable ... and the available resources for malaria control will benefit are lot more people.

Thank you ... and for more information and follow up, please contact:

Tr-Ac-Net in New York

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## QUESTIONS?