Malaria Elimination Scenario Planning: progress and future plans

During the last decade, substantial progress has been made in controlling malaria worldwide. The magnitude of that progress has led some malaria endemic countries to consider the possibility of malaria elimination. Existing program guidance for elimination activities provided by WHO includes only a limited discussion of its technical and operational feasibility. WHO and partners in global malaria control recognized that countries considering elimination would benefit from a more detailed elimination planning toolkit, one which would cover the technical, operational and financial aspects of malaria elimination and which could provide realistic timelines for programmes moving from the control to the elimination phase of malaria program operations. Consequently, WHO has worked with partners from the Clinton Health Access Initiative, Imperial College, Johns Hopkins, University of Southampton, and the Global Health Group to develop such a tool. The Elimination Scenario Planning (ESP) toolkit includes a manual which reviews elimination concepts and guides users through the technical, operational, and financial feasibility of elimination. The manual is linked to malaria transmission model software, focused on Plasmodium falciparum in Africa, which allows users to explore the effect of a range of intervention packages to achieve elimination.

The malaria ESP toolkit was field tested at a meeting of malaria stakeholders from The Gambia and Senegal held in Banjul, The Gambia during 2012. Workshop participants used the tool to explore the effect of various combinations and coverage levels of interventions on malaria transmission in their respective countries. Participants were also asked to evaluate the utility of the ESP toolkit for country-level strategic planning, with elimination in mind. Discussion points and feedback from the country participants were gathered and have informed further refinement of the toolkit. The ESP toolkit manual is currently being finalized for release within the next few months.

During the development of the toolkit, WHO and partners recognized that a similar approach, linking concepts in implementation of interventions to an accessible transmission model which presented possible outcomes of intervention combinations, could be used for malaria program planning in other settings. GMP would appreciate input from the MPAC on what other directions we could take in the development of this tool.

We envision at least three new directions for the ESP tool:

1) Should the ESP toolkit be modified to function as a general program planning tool?

As originally conceived, the toolkit is focused on planning for elimination scenarios, where the goal is reducing transmission to zero. Many of the concepts covered in the manual regarding technical and operational aspects of implementing interventions are applicable to countries who have near-term goals short of elimination. Similarly, the transmission software is not designed exclusively for elimination outcomes. With a steadily growing list of intervention tools, one aspect of the software that countries in control program phase may find useful is the ability to explore combinations of
interventions. Modeling partners are working on adding cost component to the interventions so that an projected cost for different intervention combinations could be derived.

2) Should the ESP toolkit be extended to address scenarios of low transmission *P. falciparum* outside of Africa?

The ESP toolkit manual and transmission software are focused on *P. falciparum* endemic countries in Africa, where most countries have moderate to high baseline malaria transmission. Extending the toolkit to address settings with low transmission of *P. falciparum* outside Africa would involve further development of the transmission model software, for instance incorporating factors relevant to different vectors, and modification of the manual to highlight technical and operational aspects of interventions relevant to low transmission settings, such as case management and surveillance strategies.

3) Should the ESP toolkit be extended to cover settings where *P. vivax* is predominant?

Extending the toolkit to address settings where *P. vivax* is predominant would also require further development of transmission model software and modification of the manual. A scenario planning toolkit for *P. vivax* settings would be in line with current work of GMP in the development of a *P. vivax* strategy.