

JERUSALEM DECLARATION ON MALARIA ELIMINATION IN AFRICA

Almost a century after Dr. Israel Kligler initiated a malaria elimination campaign in Mandate Palestine, the undersigned met in Jerusalem to honour his exemplary approach that consisted of an integrated attack on malaria that ultimately led to its disappearance. In many ways, the disease burden of malaria in Africa today resembles that of Palestine when Kligler first arrived. His success – a toolbox that included larval mosquito control, swamp drainage, quinine prophylaxis and treatment, community education - played a major role in making the Holy Land habitable and productive.

The value of this historical approach was seen again in the successes of Dr. Fred Soper of the Rockefeller Foundation. Between 1938-1940, Dr. Soper succeeded in the elimination of an imported but established African malaria mosquito population from its entire distribution over 54,000 km² in Brazil. He achieved further success with the elimination of malaria from Egypt during WWII. Today, children are needlessly dying of malaria in fourteen African nations that are smaller than the area cleared of African mosquitoes by Soper in Brazil.

It is noteworthy that the success of these historical strategies, which consisted of the destruction of malaria mosquito breeding grounds, land reclamation, and housing improvement, occurred before the current strategies based on bednets, residual spraying, synthetic quinine derivatives and artemisinin-based therapies became mainstream.

Contemporary strategies are making inroads toward malaria elimination but are hampered mainly due to insecticide and drug resistance. It is absolutely imperative that we revive the historical strategies as an addition to existing integrated approaches. When augmented with exciting contemporary digital technologies that were absent in the Kligler and Soper days, we can save more lives by making malaria elimination cost-effective and realistic.

We cannot lose the gains of malaria control over the last decade. Worse, in the absence of dramatic successes in the fight against malaria in the near future, it is likely that donor fatigue will result in a situation comparable to that of forty years ago when malaria control and eradication was no longer of interest.

Therefore, we, the undersigned of this declaration, a unique gathering of concerned malaria specialists from around the world, urgently recommend that:

- Larval source management, *i.e.* the rigorous, systematic and uncompromised control of aquatic stages of malaria mosquitoes in breeding sites as well as the modification thereof, be added to current strategies. No country that eliminated malaria succeeded in doing so without larval source management.
- Elimination efforts be guided by detailed epidemiological monitoring of parasite prevalence in representative and comparable sentinel human populations as well as mosquito and climate data.
- The growing cadre of African specialists, now working in strengthened economies, lead in taking ownership of and responsibility for malaria elimination efforts tailored to their specific eco-epidemiological situations.
- Pilot elimination projects be undertaken in appropriate settings of Africa, several of which were identified by us, to demonstrate the advantages of classical integrated approaches.

Signed this 12th Day of December 2013:

Dr. Safiou Abdou Razack, Gabon

Mr. Anton Alexander, UK

Capt. Serge Christiaans, The Netherlands

Dr. Major Dhillon, USA

Dr. Zalman Greenberg, Israel

Prof. Charles Greenblatt, Israel

Dr. R. L. Jacobson, Israel

Dr. William Jobin, USA

Dr. Bart Knols, The Netherlands

Dr. Sanford F. Kuvin, Israel and USA

Mr. Manuel Lluberas, USA

Dr. Silas Majambere, Tanzania/UK

Dr. Maureen Malowany, Israel

Dr. Wolfgang Richard Mukabana, Kenya

Mr. Steve Mulligan, USA

Prof. Yehuda Neumark, Israel

Dr. Olusola Oresanya, Nigeria

Dr. Laor Orshan, Israel

Mr. Leon Poddebsky, Australia

Dr. Clive Shiff, USA

Prof. (Emeritus) Dan Spira, Israel