

## Book review: ‘Improving the US Presidential Malaria Initiative’

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### Review

It rarely happens that well intentioned but poorly executed malaria control programmes become scrutinised years later as a means to encourage us to improve upon what we do today. It becomes even more interesting when this scrutiny is not undertaken by some external review committee but by one of the key people directly involved in the programme. And it is salient that this scrutiny involves one of the major global players in malaria control today: The US President’s Malaria Initiative (PMI). Sufficient ingredients to read Bill Jobin’s book *Improving the Presidential Malaria Initiative*, I should think.

Jobin is a public health engineer with more than fifty years of experience in public health programmes, mostly in Africa. Such vast experience in malaria and other infectious disease control on the ground is beyond doubt rare these days, so we may *a priori* assume that he has some important things to say. And since he has retired, there is no need for him to shy away from saying what needs to be said even if this may not be appreciated by those leading the battle against malaria today. Jobin, now well in his eighties, puts his money where his mouth is.

### Angola

In June 2005, former US President George W. Bush launched the PMI programme and targeted Angola, Tanzania and Uganda as the initial countries in which to unleash an attack on the disease. The choice for Angola, in terms of malaria, seemed obvious. Half of all hospital admissions and a quarter of all hospital deaths in the country are due to malaria; with annually 1.5 million cases. But Angola in those days was led by a military dictatorship more interested in siphoning off oil dollars to private bank accounts than in the health of its people. Therefore Jobin considers the presence of black gold (oil) as a likely determinant why the US chose Angola. Based on nothing more than rudimentary data from the National Malaria Control Programme (NMCP) regions were prioritised. Moreover,

getting a true sense of the severity of the malaria problem in geographical terms was virtually impossible and based on poor statistics (suspected cases and deaths) kept by the Ministry of Health that had been collecting such data for years, only to shelve them without any further use. Rural health facilities were understaffed and lacked diagnostic tools and drugs, which surely contributed to underreporting of disease because people sought relief elsewhere (e.g. through traditional medicine). Headache and fever, on the other hand, was enough to enter the books as ‘malaria’, resulting in massive over reporting. Obviously, Jobin argues, starting an intervention based on such poor baseline data is tricky at best.

Nevertheless, USAID was determined to quickly get activities going on the ground, thereby negating the importance of establishing proper baseline data. Jobin describes the string of events and dates that led up to the actual campaign in great detail. Although spraying in southern Angola was planned ahead of the rainy season there were major delays that occurred. Notably the administrative hurdles and government approval for the campaign took much longer than anticipated. The result was that spraying now overlapped with the rainy season, making the use of 4x4 vehicles a necessity. But since these were too expensive to hire, common minivans were deployed with the necessary restriction to urban areas that then were selected for spraying.

### Did we accomplish anything in Angola?

Jobin starts a chapter in his book with this very title. In it he draws a stunning conclusion ‘*Although the folks at USAID in Washington DC seemed to know how to impress President Bush, they didn’t seem to know much about fighting malaria in Africa. Unfortunately, post-operations analyses of available data indicated no impact from the spray campaign. In fact, there had been no malaria in the region – due to a growing and severe drought: No rain, no mosquitoes, no malaria*’. Over 2.1 million dollars were spent on a spray campaign for which there was no necessi-

ty at that time. None of that money, Jobin asserts, was spent on surveillance or data collection. Of this he and colleagues involved in the Angola operation state in a 2009 publication in the WHO Bulletin [1]: ‘*Vigorous objections by the authors to the lack of reliable current data on mosquitoes and malaria for the proposed spray area were overcome by what proved to be false assurances from USAID that staff from the US Centres for Disease Control (CDC) would collect the data in due time*’.

The book is particularly informative for students and scientists, policy makers and politicians because it details the myriad of challenges that need to be overcome when implementing a large-scale intervention against malaria. Noteworthy is the fact that few of these challenges are scientific in nature; instead the bottlenecks are to be found in the fields of logistics and general management – key issues that one hardly reads about in the scientific literature. Perhaps striking is the fact that these challenges have hardly changed over the last Century. If one compares Jobin’s book with that of Ronald Ross, *Mosquito brigades and how to organise them*, published in 1902 [2] it is not hard to guess why progress has been so limited.

## Recommendations

In the final chapters of the book, Jobin details a list of recommendations on how to improve the PMI programme. Three of these pertain to all countries in which PMI has unfolded operations: 1) Rigorous evaluation of epidemiological indices (notably malaria prevalence and incidence) needs to be undertaken at regular (e.g. annual) intervals. Only then can the true impact of interventions be assessed. Sampling by epidemiological strata, in the same month each year in selected and representative sentinel populations will provide solid information on the effectiveness of operations. 2) Given that all current malaria control interventions are based on biocides (insecticides, drugs) to which resistance will inevitably develop, Jobin proposes to add additional and sustainable measures to these, notably environmental and larval source management, as well as house improvement (i.e. screening). Moreover, if elimination is to succeed (which Jobin doubts; he is convinced that elimination in major parts of Africa is still decades away) than reliance on house-based measures will not be sufficient and necessitate area-wide measures (such as larval source management). 3) His final recommendation is of a programmatic nature, where he makes a strong case for building national capacity to take over PMI campaigns within five years. Only then, he argues, will activities become sustainable beyond PMI.

More specifically for Angola, Jobin argues along similar lines as above, but also adds the need for an international technical group to help rationalise the programme. At the national level, a technical committee is needed to support and expand the role of the NMCP. These groups

should safeguard the collection of better data both in epidemiological and in entomological terms, should develop integrated control measures that incorporate elements beyond bednets and indoor spraying, and develop a national cadre of competencies that can ensure a sustainable programme. Although these recommendations sound logical their implementation in Angola will have to take place *post factum*.

The key take-home message of the book is simple: Don’t rush. And although the world wants to see quick gains in reducing malaria, this book clearly shows how things can go wrong and major sums of money can go to waste if we roll out interventions on the basis of incomplete and unreliable data.

A must-read for anyone interested in the real world of malaria control out there.

## References

1. Somandjinga M, Lluberas M, Jobin WR: Difficulties in organizing first indoor spray programme against malaria in Angola under the President's Malaria Initiative. *Bull World Health Organ.* 2009, **87**:871-874.
2. Ross R: *Mosquito brigades and how to organise them*. London: George Philip & Son, 1902. 100 pp.

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