

Key note speech for the NMCP Best Practice Workshop, 10th June 2015, by Charles Nelson, Chief Executive of Malaria Consortium, in Maputo, Mozambique

Accelerating from control to elimination

Honourable Minister for Health, Ladies and Gentleman [need to validate necessary protocols depending on who is there].

It is a great honour to have the opportunity today to be one of those to set the scene for your discussions over the next two days looking at 'Accelerating from control to elimination'. Thank you, Linus, for the invitation. While I carry with me 25 years' experience in health systems, I suspect, against a benchmark of many of you around the room, my personal engagement with the fight against malaria is relatively short, though the organisation I now represent and have the honour to lead, Malaria Consortium, has been engaged far longer, and has the privilege of having worked with many of you in the very practical implications of bringing both new and well-established interventions to those that need help most, in some of your remotest communities, in all levels of transmission.

I want to begin by asserting that this meeting comes at a very significant time. Why significant? Though there are many reasons, perhaps I can pick just three for the sake of time:

- The discontinuity of the end of Millennium Development Goals. In 6 months, the age of the Millennium Development Goals, which have provided a backbone for focused national and international interest in malaria, draw to a close. They will be replaced by Sustainable Development Goals that look to *ensure healthy lives and promote well-being for all at all ages* as the top line health goal – although it seems that concluding unfinished Millennium Development Goal' tasks, including overcoming malaria, will remain a top-line' priority
- The sad realities of the recent outbreak of Ebola in West Africa have reawakened an understanding that health system strength cannot be assumed or taken for granted, particularly when faced with a shock of this nature, and has reinforced the need for a more holistic approach
- The map of resistance of mosquitoes to insecticides, especially in Africa, and of the parasite to available treatments in South-East Asia is changing shape faster than perhaps previously recognised and before the world is ready with the next generation of insecticides, treatments or approaches. As more evidence has become available recently, more countries in South East Asia have transitioned, as surveillance has improved, into a category where some drug resistance is present

In light of this 'discontinuity', the shift from 'disease-focus' to a more holistic approach to health, the reality that a significant number of countries are graduating economically from previously constituted support mechanisms, and there are electoral changes in governments at both ends of the aid equation, all traditional international funders are revisiting their funding strategies, and there remains some evident uncertainty about where it will all come into land.

In this period of uncertainty, though, we shall have at our disposal two new 'companions'! The new Global Technical Strategy for Malaria 2016-2030, which has recently been adopted by the World Health Assembly, the final draft of which is available on the WHO website. You will hear more about this later today from Dr Andrea Bosman at the WHO. This is complemented by the Action and Investment to defeat Malaria 2016–2030, the AIM document. This follows on from the first global malaria action plan and helpfully positions malaria in the wider development agenda and describes how dealing with it contributes to the wider goals and thereby should promote an inclusive and multi-sectoral response. Both documents, which will be formally launched in Addis Ababa at the development meeting in mid-July, highlight why domestic

resources and innovative financial solutions will play a vital role in driving and maintaining progress against malaria in the SDG era.

The Global Technical Strategy provides for us a comprehensive framework intended to allow countries to develop tailored programmes for accelerating towards elimination. Importantly it emphasises that progression towards a malaria-free status does not consist of a set of independent stages but is a continuous process requiring a structuring of programmes in line with sub-national stratification, based on real, changing risk. It also identifies areas where innovative solutions will be essential to achieve the goals, and the modelled financial implications. It is perhaps a little less immediately clear on some of the technicalities of how to position countries or regions on the elimination pathway, but that is work that will need to be done.

Though many of you may be aware of its contents, and I have no desire to pre-empt the detail of Andrea's presentation later, it seems worth highlighting here the three main pillars of the strategy and thinking together for a few moments about the potential implications for you as NMCPs, or NMEPs.

- **Pillar 1 - Ensure universal access to malaria prevention, diagnosis and treatment.** I think it is fair to assert that, notwithstanding a few very severe or complicated cases, we currently have at our disposal the tools to prevent anyone dying from malaria. Not 10 years ago we had to tell the world that a child under 5 was dying somewhere every 30 seconds. There has been major progress since 2000 with the wider application of approved interventions.
 - Many millions of insecticide-treated nets have been distributed and mosquito net use has risen
 - Seasonal malaria chemoprevention has been approved for up to 24 million eligible children across the Sahel and 2015 will see a substantive increase in the number of those children reached with qualified product, and more still, we hope, in 2016 as the supply side strengthens
 - Field-based diagnosis, with relatively high degrees of confidence in the accuracy, has increased dramatically, improving the targeting of treatment
 - Significant quantities of high quality ACTs have been made accessible with the support of the international pharmaceutical sector.
 - More children can obtain diagnosis and treatment through countries' commitment to supporting community health workers for malaria alongside other common diseases
 - There is now seemingly a level of agreement that the only way to eliminate drug-resistant malaria, is to eliminate malaria

Because we are coming from a time of 'presumptive treatment' for malaria, we have to accept that, to some extent, it is true that figures for mortality from malaria are also somewhat 'presumptive'. Bearing that caveat in mind, since 2000, the number of annual deaths declared to have been caused by malaria has nearly halved and more than 4 million lives have been saved. That is remarkable news and must be acknowledged and celebrated. We can also rightly declare that interventions in malaria have been among the most effective investments that could have been made to reduce the burden of ill-health.

There are however a few 'buts'. I am sure there are others but again let me pick a selection:

- We haven't finished yet
- We know things will go backwards if we let them.

- We still have to say that a child is dying approximately every minute from malaria. I would hope that if we were to bring this statistic to the attention of the globe for the first time now, this would remain shocking and be sufficient to stir all relevant stakeholders to action
 - Insufficient progress has been made in getting the most vulnerable populations sleeping protected under a mosquito net and with access to treatment
 - I think we have to acknowledge that it has, at times, taken too long to get new technologies approved and in use, or to execute distributions of mosquito nets to scale such that the full public health value of such activities can be realised
 - We have not yet created sustainable solutions for continuous distributions of mosquito nets that negate the need for expensive, large scale campaigns,
 - Ineffective anti-malarials and sub-standard vector control tools have not been fully removed from our markets and, with a few possible exceptions, we have not yet found a model that has consistently transitioned the benefits to the local economy of manufacturing the required quality of products, to the private sector, in domestic markets
 - The parasite and mosquito continue to be evasive enemies, mutating and/or developing resistance faster than we have been able to develop and apply new tools to keep ahead and we have probably focused less on entomological tracking than ideal. The risks of losing our effective tools are dire.
 - The health systems weaknesses, such as unmotivated health workers, interruptions in supply of commodities and little access to surveillance data linked to active response, still mean that many of our programmes are not achieving what they have the potential to do. A more sophisticated collaboration is needed to maintain intense disease-specific efforts together with improving the systems of delivery.
 - The direct correlation between intervention and outcome is not always as clear as we would like. There are geographic situations where the apparent impact on malaria does not correlate directly with the level of intervention and I think we must admit we cannot always explain, with evidence, the apparent rates of change – both positive and negative to expectations
- **Pillar 2: Accelerate towards elimination and attainment of malaria-free status.** Again there is some good news here:
 - History tells us it is possible to eliminate malaria. Since 2000, eight countries have declared ‘malaria freedom’ and many more are now living with transmission rates well below their baselines and are on the road to elimination.
 - Malaria no longer comes high on the disease-burden agenda of some ministers of health and resources can be reallocated to other topics. Finance Ministers are beginning to believe that they can legitimately plan alternatives for their health-related spend
 - There are now diagnostic mechanisms able to identify parasitaemia at very low levels and thereby target treatment
 - Some progress has been made on tools and approaches for transmission blocking for *Plasmodium falciparum* and radical cure for *Plasmodium vivax*, the medicines for malaria venture (MMV) pipeline is relatively strong, and there are some encouraging new insecticides imminent to complement and/or replace pyrethroids.

But:

- We haven’t finished yet

- A large part of the parasite pool is in otherwise non-symptomatic individuals and in many places the most remote and mobile populations, often in border areas
- Cross-border collaboration is therefore vital as there is no passport control and health screening for mosquitoes, at least that I know of!
- To ensure elimination 'every case needs to be an emergency' and to quote Alan McGill of the Bill & Melinda Gates Foundation at a conference in Cambodia in February, 'every parasite must be eliminated with prejudice'. I am not sure, at least until recently, that the sense of continued urgency needed and the political will necessary for elimination, have been coinciding
- The short-term 'economics of elimination' may appear unattractive at first sight. Cost-per-case increases could make each intervention seem less attractive in health economic terms. Diagnosing low-level parasitaemia is more expensive. You will see in a presentation by our colleague from Sri Lanka later today, an example of the cost per case moving to elimination. The economics change. We have to understand and accommodate that.

This makes Pillar 3 all the more important...

- **Pillar 3: Transform malaria surveillance into a core intervention.** The argument is that without a strong malaria surveillance system, at both the national and sub-national level, it is impossible to accelerate progress which is achieved through effective planning of programmes, targeting of interventions and rapid responses to data received. The nature of the surveillance needed transitions with level of transmission, as do the combination of potential activities that will make up the best response. As transmission drops, experience suggests that the disease becomes heterogeneous and concentrates in those who have the greatest issues with access. Diagnosis and treatment need to be done through outreach and community engagement. Correctly diagnosed individual cases or clusters of infection need to be investigated so as to understand the risks, tailor the responses and eliminate the foci of transmission – all of this is targeted through the data coming from the surveillance system. All of this, of course, is possible in principle. But:
 - Ideally, data needs to be collected as part of a wider disease surveillance/reportable disease approach and linked to routine information systems
 - Confidence in the data needs to be high as these will drive what appear to be high cost-per-case interventions. Active engagement must be made with the private sector who will undoubtedly, in many of the countries represented here, continue to play a significant part in diagnosis and treatment in the coming years – and unless cases seeking treatment in the private sector are reported, we cannot respond.
 - Response to incoming data needs to be fast
 - Responders need to be available and able to apply well-established protocols based on the findings of the investigation and carry with them the appropriate authority to act
 - Complete success of treatment also needs to be verified
 - It is possible that, as levels of immunity decrease, the risk of outbreak and level of severity of any individual case may increase

So briefly what does this all mean for National Malaria Control Programmes other than becoming Malaria National Elimination Programmes?

- One size will certainly not fit all! The level of complexity of planning will increase as sub-national targeting of interventions become valid, and require significant work. Our host country here, as I

am sure we will hear from Dr Candrinho shortly, is an excellent example with all levels of endemicities as we travel from high levels in the north to pre-elimination levels in the south.

- The ability to differentially diagnose what is causing fever when malaria is not, must improve as not doing so can lead to continued 'presumptive treatment' for malaria even when confirmed it is not malaria. I recall in a part of Afghanistan where I was running the health system in a prior role, we established that 22% of all cases of fever being presented were leaving the clinics with a malaria treatment. There had only been 3 cases confirmed for the prior year. But they had no means to differentially diagnose and the patient wanted something and the clinic wanted to supply something, I am sure there are many anecdotes around this room that could reinforce this.
- We have to believe our own story and this must have impact on our planning. Commodity procurements need to fit with the 'new rational use'. Rapid diagnostic test procurement should remain high but the ratio to ACTs needed must rise in support of rational use as prevalence decreases.
- As we move to elimination, 'every case needs to be an emergency and every parasite eliminated with prejudice' and strong surveillance systems will be a pre-requisite
- But there will be increased competition for the hearts and minds of decision-makers on the allocation of resources, both domestic and international, particularly as the apparent cost per identified case increases. This needs the highest level political understanding and commitment.

We must acknowledge that prioritising between competing elements is not easy and it is only through confidence in timely evidence, driving a stratified response, with cooperation across borders, supported by adequate resources that malaria will continue to get the right attention and this acceleration to elimination will be achieved

Honourable Minister; Ladies and Gentlemen. With that, I wish you every success in the forthcoming deliberations and look forward to talking with many of you over the next couple of days. I also look forward with you to a year when a world malaria day is no longer called for and best practice meetings are about something else! Thank you.

Charles Nelson

Chief Executive; Malaria Consortium

10th June 2015