Inaugural Address

By
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at

International Conference on Malaria
(Commemorating 125 Years of Malaria Research)
Theme : Laveran to Genomics

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Mrs Panabaka Lakshmi, Honourable Minister of State for Health and Family Welfare,
Mrs Jalaja, Prof Ganguly, Dr Srivastava, Dr Shiv Lal, Prof Dash, Dr Joshi

Distinguished Guests,
Ladies and Gentlemen,

• I deeply appreciate the invitation for me to address this Conference.

• Certainly, it is extremely important to commemorate the 125th anniversary of the discovery of malaria parasites by Dr Laveran.

• The discovery by Dr Laveran in 1880 and by Dr Ronald Ross in 1897, of the transmission of malaria, was indeed a landmark in medical history.

• This scientific breakthrough helped greatly in understanding the epidemiology of malaria and how to control it.

Distinguished participants,

• It is well known that malaria was once the greatest killer on earth.

• It not only killed vast populations, but also impacted on economies and livelihoods of mankind.

• Brigadier Sinton estimated in 1911 that the annual economic loss to India due to malaria was between 19 and 23 million pounds.
• This was a very large sum of money at that time.

• Throughout history, various methods had been used to control this mass killer, but without much success.

• During the Second World War, DDT was used as a residual insecticidal spray to control the vector which was involved in malaria transmission.

• Shortly thereafter, chloroquine – a powerful antimalarial, and primaquine – a gametocidal were used.

• As a result, there were high hopes that malaria could soon be eliminated.

• With the initiative and support from WHO and other international agencies, a global malaria eradication strategy was launched in 1955, with remarkable results initially.

• During 1950s, India accounted for 75 million malaria cases, and 800,000 deaths a year.

• As a result of the eradication programme, in 1964, there were only 100,000 reported cases with no deaths.

• Similar achievements were seen in all malarious areas elsewhere in the Region.

• But, unfortunately, this success could not be sustained; and the eradication of malaria continued to be an elusive dream since the 1970s.

• Today, malaria continues to be a serious public health problem in the South-East Asia Region; with Maldives as the only country which is free from malaria.

• Currently, the Region reports about 2.5 million confirmed cases annually, with nearly 5,000 deaths.

• These figures are obviously gross underestimates.

• The degree of underreporting of malaria cases and deaths is really indicative of the very weak surveillance system in countries.

• This, in turn, is a reflection of the poor state of national malaria control programmes.

• Without knowledge of the actual disease burden, it will be very difficult to accurately assess the socioeconomic loss attributable to malaria.

• And it will be very difficult to argue for more resources for its control.

• What we do know today about malaria in the Region is indeed very disturbing.
• The proportion of the severe form of malaria (*Plasmodium falciparum*) is on the increase, to the extent that half of all malaria cases are now caused by this strain.

• Moreover, there is the added problem of resistance of vectors to insecticides; and behavioural changes among vector populations.

• *Plasmodium falciparum*, which has the potential to kill, has already shown resistance to commonly-used antimalarials.

• The frequent ecological imbalances created by human activities are disturbing.

• Over and above, the malaria situation is difficult to control because of environmental changes due to natural disasters, like the tsunami, super cyclones; or other adverse phenomena due to global warming.

• Under such situations, a uniform method of control, as practised during the “Eradication Era”, is no longer applicable.

• Rational planning is, therefore, needed to formulate a specific malaria control strategy for each problem area.

• The malarious areas need to be precisely stratified, and an appropriate control strategy applied.

• Here too, a clear understanding of the disease epidemiology and entomology is essential for both stratification and intervention planning.

• Besides the above-mentioned aspects, malaria control nowadays poses emerging challenges.

• In the rural areas, malaria has developed its own specific characteristics, warranting approaches which are different from those needed for the urban areas.

• With growing industrialization and urbanization, many large, medium and small-scale development projects are being taken up speedily.

• In several cases, these are done without proper planning, leading to the occurrence of mosquito-breeding places.

• Furthermore, the migration of labourers from endemic areas into those which are malaria-free, or to cities and towns, also contributes to new foci of malaria.

• The same is true of irrigation projects, which are often designed without appropriate care being taken to prevent mosquitogenic conditions.

• The areas at international borders are highly vulnerable to malaria infestation.
• Because these areas lack the public health measures to tackle communicable diseases, including malaria.

• And the frequent cross-border movement of people aggravates the already bad situation.

• Keeping in mind the rapid pace of urbanization, and improperly regulated development activities, malaria control today requires new and locally-specific solutions.

• Special attention must be given to the vulnerable groups of population, particularly children and women, especially pregnant women.

• These groups also include ethnic minorities and the tribal population living in remote areas, where public health facilities are not adequate.

• In view of the evolving situation of malaria in the Region, I believe that we need a new paradigm in our strategy for malaria control.

• I would like to propose in this connection that we focus on a few areas as follows:

  • **Firstly**, we should invest more efforts in assessing accurately the burden of malaria in the Region, or throughout Asia.

  • There should be an in-depth study on its socioeconomic implications.

  • There is need for a really sensitive surveillance system that can provide early warning of an outbreak.

  • A system that can help to plan more rationally for prompt response to contain the outbreak and to prevent its further spread.

  • In addition to basic and laboratory studies and investigations, operational or action-cum-research is essential.

  • This will lead to a better understanding of the problems associated with programme development, management and interventions.

  • The focus on locally specific data collection and use, according to the locally specific situation, must be emphasized.

  • I am happy to note that in several countries, including India, many reputed institutions are working on research in various aspects of malaria.

  • WHO is trying its best to strengthen research capacity in countries in collaboration with these institutions.

  • The priority area for research also includes the development of new antimalarial drugs and various combination therapies.

  • A vaccine against malaria is not yet available, in spite of the tremendous efforts over several decades.
• It is likely to take several decades more, before any effective vaccines can be made readily available for use in the community.

• In spite of the slow progress in vaccine development, several innovative tools are available, which are the products of tireless attempts of researchers.

• Newer tools and approaches for malaria control should be fully utilized.

• Such as rapid diagnostic test; long-lasting insecticide-treated nets; geographic information system; remote sensing.

• These new approaches also include knowledge on the vectorial capacity of sibling species; and advances made in the treatment of \( P. \) \textit{falciparum}.

• At the same time, operational research must be built into the intervention programme to assess the cost-effectiveness of these tools and approaches.

• \textbf{Secondly}, ladies and gentlemen, Member States must accord malaria a high priority.

• And the strategy for its control must rightly be brought on the national and international agendas.

• We must stress that malaria in Asia has its own unique problems and areas of concern.

• This aspect must be articulated, not only in countries, but also at regional and global levels.

• The need for allocation of more resources is critical.

• This is in order to arrest the increasing trend of drug resistant malaria, and the emergence of \( P. \) \textit{falciparum} as the predominant strain in the South-East Asia Region.

• In this regard, I am glad that all our Member States are committed to the \textquotedblleft Millennium Development Goals\textquotedblright.

• The goals that also include the target to arrest and reverse the trend of malaria.

• \textbf{Thirdly}, malaria should not be considered as an exclusive problem of the health sector alone.

• Its control requires a broad multisectoral and multidisciplinary approach.

• Malaria is not only a medical and public health problem; but also closely associated with environmental and ecological factors.

• Other sectors, such as agriculture, environment, forestry, education, and finance must fully share their respective responsibilities for malaria control.
• Malaria control is a challenging area for high-level advocacy to promote healthy public policies; from which this public health intervention will also benefit effectively.

• The involvement of the private sector, civil society and the community itself is necessary indeed.

• For long, the involvement of the private sector at all levels has been ignored.

• This involvement at the primary, secondary and tertiary levels of intervention is essential for malaria control.

• Our approach in this connection should now also include “public-private partnership”.

• Community involvement in the interventions to control malaria will go a long way in strengthening public health services to serve the entire population.

• This is particularly by enhancing health seeking behaviours, strengthening speciality services, and making full utilization of services provided.

• No less important, women’s groups can be effectively mobilized to contribute to community-based services for malaria control.

• **Fourthly**, malaria control programme should shift its emphasis from a mainly treatment-oriented approach to a well balanced combination of prevention and treatment.

• This is to ensure that we have more ways and means to reduce or stop the transmission of malaria parasite.

• What might be suitable to be applied in other continents may not necessarily be appropriate for use in our situation in Asia.

• Devices and tools need to be properly adapted, or even invented to suit our specific needs and requirements.

• It is a fact that we have high morbidity, but low mortality due to malaria.

• This means that we may have succeeded in reducing the case fatality rates through early diagnosis and prompt treatment.

• But, we have not equally succeeded in reducing the malaria incidence.

• This implies that we are not successful in stopping or reducing the transmission of malaria parasite.

• A better understanding of the ecological, social and behavioural determinants is essential indeed.
• This is to ensure the development of evidence-based policies and strategies that are really suited to each locality.

• Therefore, among others, social mobilization and community involvement during planning, implementation, monitoring and evaluation of the programme are very significant.

• These will create a better acceptance of preventive measures, such as in reducing mosquito breeding places and in the use of personal protection materials.

• Also, the utilization of treatment services will be appropriately promoted under this strategy.

• People and community need to be empowered to be able to initiate and implement certain intervention measures, at least for individual and family protection.

• Finally, ladies and gentlemen, we need a package of tools with proven effectiveness.

• The package that can generate the greatest impact, if properly applied in communities with different situations.

• We also need to set and use a few indicators and targets as an integral part of the implementation of national malaria control programme.

• These indicators and targets should be really measurable, relevant, reliable and appropriate for use in various situations.

• Then, we have to put in place an effective mechanism to monitor systematically and regularly the progress of programme implementation towards achieving these targets.

• This, I believe, if pursued vigorously, consistently and honestly, will provide evidence of our progress, in both coverage as well as quality.

• This will lead to the reduction of both morbidity and mortality due to malaria.

• Before concluding, ladies and gentlemen, I would like to emphasize that we, all of us together – the Governments, international organizations, the public and the private sectors, and the people at large, are equal partners in health development, including in the control of malaria.

• Through these means, we can move further with certainty to ensure a malaria-free world and a healthier population.

• The population with a full potential for increased social and economic productivity in countries of our Region.

• India has been recognized to be at the forefront of many pioneering research studies in malaria.
• Dr Ronald Ross who was awarded the Nobel Prize in 1902, not only worked in India, but was also born in India, in Almora.

• The Malaria Research Centre has made the very right decision to organize this important Conference in Delhi.

• Malaria research started with the discovery of the parasite in 1880; and now extensive studies on the genome are being conducted worldwide, including in India.

• This is the latest advancement in sciences for the uplift of human health.

• These research efforts will provide us more insights on the parasite, and its vector and host.

• It will be another breakthrough by the modern health sciences.

• It is expected that research would help in the better understanding of the totality of the disease; medically, epidemiologically, environmentally and ecologically. And it therefore will lead to the development of really effective control measures and interventions.

• At the cutting edge of sciences, we must strive to ensure the full use of scientific and technological advancement for the welfare of the entire human population.

• Finally, let me wish you all, fruitful deliberations, and wish the Conference every success.

Thank you.