

SCALE UP OF IRS/LLIN AND CHALLENGES FOR MATCHING WITH VECTOR SURVEILLANCE

Dr Kiambo Njagi
Kenya, Malaria control
programme

Malaria situation in kenya

- Malaria remain the leading cause of morbidity and mortality in Kenya accounting for 30% of the out patient attendance in the health facilities
- The distribution of diseases is not uniform but show great variation due different climatic conditions which affect the vector distribution and ability to transmit the parasite

Malaria control before 1998

- Prior to 1998 (RBM) the malaria control strategy in Kenya was case management –treatment and diagnosis
- Treatment was based on both confirmed and presumptive
- Vector Control was conferred to small scale Research Projects

Malaria control 2000-to date

- RBM was adopted and strong advocacy for malaria control activities were intensified
- The Ministry of Health created a Division – (DOMC) Division of malaria control to coordinate the malaria control effort
- National Malaria Strategic (NMS) document 2001-2010 was developed to guide the implementation and scale –up of malaria intervention

Intervention under NMS 2001-2010

- Fiver strategic interventions were identified
 - case management
 - vector by use ITNs
 - prevention of malaria and anaemia during pregnancy
 - malaria epidemic preparedness and control
 - Advocacy & communication

Scale-up of vector control- ITNs/LLINs

- ITNs coverage has increased from 6.0% in 2000 – the current levels of 63.0% (KDHS 2008)
- ITNS promotion through social marketing has been a partnership of MOH & PSI
- ITNs distribution have under gone various phase, initially promotion of subsidized net to communities, highly subsidized –to free distribution

Current status and challenges

- Net distribution is not equal to net use, DOMC does not have human capacity to monitor and develop suitable user promotion messages
- Quality control of LLIN coming to the market
- Sustainability currently Kenya aim at universal coverage

Scale up of ITNs/LLINS

- Scale up of ITNs had various challenges among low net re-treatment, which has been sorted out with the introduction of LLINS and longer lasting re-treatment insecticides
- Current status- GOK, procure only LLINS and five different products are registered for use in Kenya (Olyset, PermaNet, Netprotect, Interceptor & Duranet).

Current status and challenges

- In case of insecticide resistance do LLINs have any impact?
- Do the NMCP have ability to monitor the current flow of resistance genes nation wide?
- How many points/sentinel sites are nation wide representative?

MWEA – Central Kenya (2009)

- Insecticide resistance has been reported to spread very fast against most insecticides
- 2006, no resistance reported (kamau et al 2006)
98-100% mortality
- 2009, the % mortality were:
 - Permethrin 66.67% n=100
 - Deltamethrin -68.0% n=125
 - DDT 79.05% n=125
 - Bebdiocarb, 75.5% n=100
 - Fenitrothion- 70.3% n=100

Scale up of IRS

- IRS has been applied in malaria epidemic malaria eco-zone since 2001 as a measure to prevent the occurrence of epidemics
- With the involvement of PMI, 2008, IRS has been expanded to include some malaria endemic districts of Western Kenya

Scaling up IRS

- Last malaria epidemic was reported in 2002, based on this experience, there plans to expand IRS to further malaria endemic districts, while scaling down the spraying in malaria epidemic areas
- The main challenges has been to measure the impact of spraying in prevention of epidemics

Scaling up IRS, and associated challenges

- Baseline epidemiological data to guide/measure the impact of spraying
- Selection of insecticide for IRS with long residual effect to be effective annually one sprayed once
- Selection of insecticide to reduce presence on pyrethroids use both for IRS and LLINS

IRS scale up & challenge

- Monitoring, many NMCP, lack capacity to monitor quality of spraying based on wall bioassay while research institution have very few personnel to bill the programmes

Meeting challenges

- The advocacy for scale-up by RBM has been successful in scaling up vector interventions in many malaria endemic countries including Kenya
- Malaria morbidity and mortality has been reduced by up to 60%
- Next steps required is capacity building to lead countries to malaria elimination

NMS 2009-17

- Aim to eliminate malaria
- Is malaria elimination possible without proper vector surveillance?



Republic of Kenya

Towards a malaria-free Kenya

National MALARIA Strategy 2009–2017

Division of Malaria Control
Ministry of Public Health
and Sanitation
July 2009



Supporting malaria-free schools initiative: *The package of interventions for the malaria-free schools initiative includes mainstreaming malaria control in the school curriculum, indoor residual spraying of schools and scaling up coverage in malaria endemic and epidemic prone areas, and testing and treating all children with parasitaemia according to the national guidelines.*

As Kenya moves to malaria elimination in the long term, there is need for operational research in key areas, including **tracking changes in malaria transmission** and **piloting school-based malaria parasite control (LLIN distribution, testing and treatment of school children).**