The President’s Malaria Initiative’s Experience with Implementing Indoor Residual Spraying

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Overview of PMI

* Launched in 2005, as a five-year, $1.2 billion Initiative to reduce malaria related mortality by 50% in 15 high burden countries

* In 2008, PMI’s goal was expanded to reduce malaria burden (morbidity and mortality) by 70% in the 15 original countries as compared to pre-PMI baseline; New strategy included plan to add up to seven countries as funding increases allowed

* PMI Strategy currently includes:
  * 19 sub-Saharan African countries (original 15 + Nigeria, DRC, Guinea, and Zimbabwe)
  * Mekong Regional Program
PMI Provides Significant Commodity & IRS Program Support

- 82 million LLINs procured
- 18 million IPTp treatments procured
- 189 million ACT treatments & 82 million RDTs procured
- IRS support provided in all 15 original PMI countries, protecting 30 million people in 2012 alone
2012 IRS Results

>7.1 Million Houses were sprayed in 16 countries

>30.2 Million Residents were protected by IRS

>34,000 Personnel Trained as spray operators, team leaders, or supervisors

High Coverage

All countries achieved >92% coverage of targeted structures
**History of PMI Support to IRS**

- IRS was included as one of the core elements of PMI’s strategy from the start of the Initiative.
- PMI helped to re-introduce IRS as an effective tool in SSA for malaria control.
- PMI continues to focus significant efforts on capacity building for IRS planning and implementation.
Support – A Comprehensive Package

- Procurement and supply chain management
- Training and operations
- Community mobilization
- M&E
- Financial management
- Environmental oversight
- Entomological monitoring
PMI’s Early Years of IRS Program Support:
- IRS was a new intervention in many PMI countries (first time to implement in decades); limited existing experience in countries to build upon
- Began with limited entomological data available to guide decisions
- Costs relatively unknown

PMI’s IRS Program Support Today:
- Data driven; Insecticide resistance data informing insecticide choice in all cases
- In context of universal coverage of LLINs, increased emphasis on targeting high transmission areas
- Intensive focus on capacity building
- Improving current approaches – e.g. Piloting community-based IRS in Ethiopia
- Supporting operational research – e.g. building the evidence base for: presumptive rotation as a means to manage resistance; focal spraying
PMI’s IRS program costs have varied by location/country due to a variety of factors:

- Frequency of application - 1 vs. 2 spray rounds per year
- Type of insecticide used
- Scale/size of the program
- Density of the population in spray areas/distance between structures
- Program approach – e.g. ratio of spray staff to team leaders to supervisors; operational approach
IRS Costs: PMI’s Experience (2)

* Cost per person protected found to be significantly lower in larger spray programs (>150,000 structures sprayed)
  * Ranging from approximately $2/pp (e.g. large programs such as Ethiopia and Madagascar) to almost $7/pp (e.g. smaller programs such as Angola and Mali)
* Insecticide resistance leading to more costly spray programs
  * Resistance prompting rotation from relatively inexpensive pyrethroid to more costly carbamate or organophosphate insecticides
  * Requiring more than one spray round per year in some cases
  * Higher costs driving decisions to reduce spray coverage areas / number of persons protected
Many examples of successful private sector partnerships with IRS

- AngloGold Ashanti in Ghana
- Mopane & Konkola Copper Mines in Zambia
- Dwangwe & Illovo Sugar Plantations in Malawi
- Arcelor Mittal in Liberia

PMI has provided technical assistance to private sector partners for their IRS program implementation; Collaborated with existing private sector efforts to expand overall coverage within countries

Great opportunity for collaboration exists for willing private sector partners
* Approximately 25% of annual country budgets have supported IRS program activities
* Over the last few years PMI has expended between $75 - $90 million for IRS programs
* 50% of this funding has focused on the five countries with the largest spray programs
* Costs have also supported the significant increase in funding for entomological monitoring activities over time
PMI remains committed to IRS as one of key interventions

In the context of universal net coverage and a fixed budget, PMI will continue to work with countries to determine best mix of interventions

PMI will continue to use evidence – from insecticide resistance monitoring & operational research results – to drive IRS program decision-making
Thank you!

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