PILGRIM'S EXPERIENCE IN IRS IMPLEMENTATION IN KATAKWI - UGANDA

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1. Mission of Pilgrim

“To contribute to the improved socio economic status of war affected peoples of eastern and northern Uganda through a holistic approach that integrates humanitarian and development assistance”.

2. Background:

- Pilgrim is:
  - An indigenous Christian NGO founded 2001
  - Vision: To restore dignity & welfare of the war affected
  - Target: War affected areas/people in N.E. Uganda
  - Programs currently cover 7 districts of Teso sub-region
  - Strategy: Pursue holistic (integrated) approaches
  - Programs: Health/Trauma, Relief/Resettlement, Agriculture/Food Security, Education, and Environmental Conservation
  - Offices: Kampala-H/Q and Soroti
2. Background:

- **Move on Malaria Program (MoM):**
  - Joint effort of Pilgrim, MCP/MoH & Local district Admins against malaria in Teso
  - An attempt to eliminate malaria in 3-5 yrs. Designed to eliminate not to control malaria. It draws and improves on lessons from previous MoH interventions
  - Program falls in line with MoH’s strategic plan for Malaria
  - Targets 7 districts – Katakwi, Amuria, Kumi, Bukeeda, Kaberamaido, Pallisa, Soroti.
  - Population targeted approx 2.0 million in north-eastern Uganda
  - Strategy is integrated – Vector control and parasite elimination
  - A response to - endemic malaria and effects of 2007 floods
  - Launched April 2008 by Hon. Dr. S. Malinga, Min of Health.
2b. Justification for MoM:

- High malaria incidence:
  - High prevalence, infective bites, etc, etc

- Effects of malaria:
  - High morbidity, mortality, etc, etc

- Poverty in the region:
  - High levels of poverty in the region by Ugandan Standards for long periods

- Effects of war:
  - Damage to/loss of infrastructure (social, economic, moral)
  - Increased poverty
  - Loss of investment environment – increased deprivation of opportunities
Justification for MoM:

- Anticipated Effects of the 2007 Floods:
  - Geographic features favorable to mosquito breeding
  - Explosion in mosquito popn – increased infection rates – increased morbidity
  - Loss of food – starvation- poor nutrition – lowered immunity
  - Loss of income – lowered purchasing power – less access to health services
  - Damaged infrastructure – reduced access of rural areas - Lower health service coverage

- Compound effect of all the above:
  - Increased poverty, vulnerability, infection, morbidity and mortality rates from malaria
2b. Justification for MoM:

- Epidemiological survey results on levels of malaria prevalence in age groups in Katakwi (July 2008)
  - 35% general prevalence,
  - 47% for kids <15 yrs,
  - 15% for those above >16 yrs
  - 3,500 cases of malaria reported weekly in health centres

- MOM in line with MoH’s strategic plan for Malaria

- Need for an intervention:
  - to halt debilitation and carnage from malaria
  - reverse onslaught of malaria,
  - Meet and
  - eliminate malaria in 3-5 yrs
3a. Long Term Objective:

**Move on Malaria**

“Contribute to eradication of malaria in Uganda through integrated multi-pronged interventions of vector control and case management in the Teso sub region”
3b. Main Objectives:

- **O.1:** IRS to be carried out in 85% of the households in the target community (Teso sub-region).

- **O.2:** Course of anti-malarial medication to be received by 85% of children between the ages of 4 months and 15 years, regardless of presence or absence of parasitemia.

- **O.3:** Course of anti-malarial treatment to be received by 85% of population above 15 years found to have parasitemia.

- **O.4:** IPTp to be received by 85% of the pregnant women in the Teso population.
3c. Sub MOM Objectives:

- i): De-worming 85% of the population with mebendazole/albendazole.

- ii): Mass distribution of provision of vitamin A supplements

- iii): Immunization of <5 yrs old children and women of child bearing age.

- iv): Inform, educate and involve communities and local authorities in the program activities.
3d. Program Strategy:

- Integrate malaria control interventions to break transmission, infection and morbidity of malaria
- Elimination not Control (focusing on both vector and parasite)
  - Informed program design (Use data & known weak links!)
  - Vector Control (STOP! the infected mosquito!)
  - Case Management (RID! population of parasites)
  - Community Mobilization (Educate & Engage beneficiaries)
  - Complementary Health Activities (maximize oppor)
  - Sustain the Attack (3 yrs All round assault!)
3d. Strategy (Informed Design):

- Information based program design for malaria eradication
  - Understanding malaria and mosquito life cycles
  - Epidemiological surveys
  - Entomological surveys
  - Micro planning (IRS, IEC, Case Mgt, De-worming, Immunization, MDA, etc)
3d. Strategy (Stop Transmission):

- Break Transmission of the malaria parasite (Vector Control)
  - IRS for all human residences
  - ITNs/LLINs – 3 per household (where funds allow – **not done!**)
3d. Strategy (Stop Transmission):

A SOP Spraying a Hut

LCV Katakwi - Opened IRS by spraying own house
3d. Strategy (Case Mgt):

- Break Infection/Morbidity
  - Management of severe malaria
  - Mass Treatment of Infected persons with ACTs (pre-morbidity stage)
  - Intermittent Treatment of malaria in pregnancy (IPTp).
3d. Strategy (Case Mgt):
3d. Strategy (Mobilization):

- Intensive IEC – prior, during, after campaign
  
  - Education/Communication – radio messages, talk shows, newspaper feature articles,
  
  - District/sub county/parish sensitization workshops, film shows, etc.
3d. Strategy (Mobilization):

- Mobilize popn to fight malaria (intensive IEC – prior, during, after campaign)
  - Information - technical/social facts about malaria, leaflets, pamphlets
3d. Strategy (Sustain):

- Sustain Interventions to elimination levels (Repeat Interventions for 3 yrs)
  - Re-spray of Katakwi and every other district every 9 months for the next 3 months
  - Maintain flow of RDTs and ACTs at the district (MOH)
  - Continue education of community on protective measures
  - Mobilize resources to cover other districts
Mosquitoes and Malaria

Malaria parasite life cycle

Anopheles Mosquitoe
Strategic Interventions:

- Complement malaria intervention with other health services:
  - Child Immunization – BCG, Polio, DPT, HebB & Measles
  - Women vaccination - tetanus
  - Vitamin A supplementation –
  - Mass Deworming – reduce anemia

- Seek Partnerships for improvement and scale-up:
  - Beneficiaries/Communities
  - Local Government Authorities
  - Ministry of Health – National Malaria control Programs
  - Health Institutions, Research Centers/Agencies, Universities
  - Fellow NGOs/CBOs engaged in the
  - Local and international donors.

- Sustain Interventions to elimination levels:
  - Repeat IRS every 9 months
  - Continuous surveillance/monitoring of malaria prevalence
  - Integration of response mechanism to district plans
Integrate Health Activities

De-worming, Vitamin A & Vaccination all included

Testing for malaria using RDTs - Katakwi
Planned vs Actual Outputs:

- **Vector Control**
  - Planned to spray 64,400 h/h, achieved 55,900 h/h (87%)
  - Planned to protect 147,900 people, achieved 172,260 (114%)
  - Planned to Cover all villages, achieved 100%
  - Followup mop up spraying – effected for two weeks after closing

- Desired to distribute ITNs for children <5yrs & pregnant mothers – not covered in the program owing to funds
Impact of MOM in Katakwi:

- More accurate and professional diagnosis of malaria using RDTs from MOH
- 92% reduction in reported cases of malaria (from 3,500 cases per week to about 300)
- Decongestions of health centers and Reduced workload among health workers in the district
- Increased knowledge of ICON CS10% efficacy against malaria causing mosquitoes through bio assay
- Increased hope, confidence and expectation of better conditions among the population
Impact of MOM in Katakwi:

![Graph showing the impact of MOM in Katakwi with data points for 2008 and 2009. The graph highlights the IRS & MDA efforts.]
Planned vs Actual Outputs:

Case Management

- Planned to provide 520 doses of IPTp, achieved 750 (144%)
- Planned to treat/manage 85% cases of severe malaria, achieved 3,436 cases (100%)
- Planned to mass treatment of 4 months - <15 yrs against malaria, achieved 64,513 (89%)
- Planned to test and treat malaria among >16 yrs olds. Tested 24,419 and treated 3,446 (100%) seen
Planned vs Actual Outputs:

- **Complementary Health Activities**
  - Planned to de-worm 68,627 persons, achieved 48,039 (70%)
  - Planned to distribute 27,013 doses of vitamin A supplements, achieved 24,852 (92%)
  - Planned to immunize 6,455 children, achieved
    - BCG (7.6%), Polio (29.4%), DPT (29.6%), Measles (16.6%)

- **Unplanned Outputs**
  - Collection of vital statistics for development planning (h/h data & demographic info)
  - Comprehensive coverage of population for child day activities
  - Acquisition of 70,000 RDTs by the district from MOH
  - Employment of 400 locals for six weeks
  - Injection of over 700,000 US$ in the local economy
  - Capacity building of local people for health interventions (supervisors, team leaders, spray persons, wash persons, nurses, mobilizers, clinicians, use of RDTs, improved diagnosis of malaria, etc)
M&E:

- Joint effort by Pilgrim, MoH, and district health team
- Bio assay currently being used to test the quality of IRS spraying on the walls
- Entomological Survey
  - Conducted prior to commencement of program
  - Standard survey techniques approved by MoH used
  - Will remain as a monitoring tool for MoH and School

- Epidemiological Survey
  - Conducted prior to commencement of program
  - Targets all areas representative of diff geo condns
  - Will remain continuous until end of program
Challenges of IRS in Katakiwi:

- Poor & Impassable state of some roads making villages inaccessible during rainy season.
- Long distances between houses (0.3-0.8 km) apart reducing performance.
- Unreliable population and statistical data at district level.
- Delays in Securing clearances for drugs imported.
- Increases in cost of materials, chemicals and fuel.
Lessons Learned:

- Integration of interventions produce better response and results
- Time IRS campaigns to coincide with dry/drier spells
- Keep SOPs/teams/supplies as close to the spray/target area as possible
- Use of locals – a plus for acceptance of IRS
- District statistics not very reliable, plan big contingencies
- Effective and comprehensive IEC is a prerequisite for good success
- Partnership of civil society, MOH, and districts is key to success
- Adequate funding, timely procurement and good organization will deliver great results
Partners and Resources:

- Resources were raised from various donors
  - Three Loaves Fund - >$ 900,000
  - GoU NMCP/MOH - >$ 25,000
  - World Concern & Agathos Foundation - >$ 400,000
  - International Mid Wives Association - >$ 40,000
  - Katakwi Local Govt - >$ in kind

- More resources needed to complete spraying and covering the remaining 6 districts
Summary and Conclusion:

- By integrating IRS, case mgt and general drug admin, Pilgrim is piloting the impact of integrated approaches to the fight against malaria
- Integrated approaches, implemented effectively and efficiently, may be the answer to malaria elimination and eradication
- Preliminary results show rapid decline in mosquito population/bites and in malaria cases at OPDs of clinics in Katakwi (over 82%)
- Malaria can be eradicated quicker than we all thought!
Thank You!

- Any Questions?