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ENVIRONMENTAL COMPLIANCE FIELD EVALUATION INDOOR RESIDUAL SPRAYING ACTIVITIES 2015-2016

PRESIDENT'S MALARIA INITIATIVE

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United States of America President's Malaria Initiative (PMI)

2008, Indoor Residual Spraying (IRS) for malaria control in Ghana began

Focus: local capacity building, strict environmental compliance and entomological monitoring

United States of America President's Malaria Initiative (PMI) – Coverage (2015-2016)

- Spray approximately 231,345 structures
- Protect 596,706 people using the long-lasting IRS product containing Actellic 300 CS™ - pirimiphos-methyl
- Spraying operations ran concurrently before the rains and the consequent peak malaria transmission period

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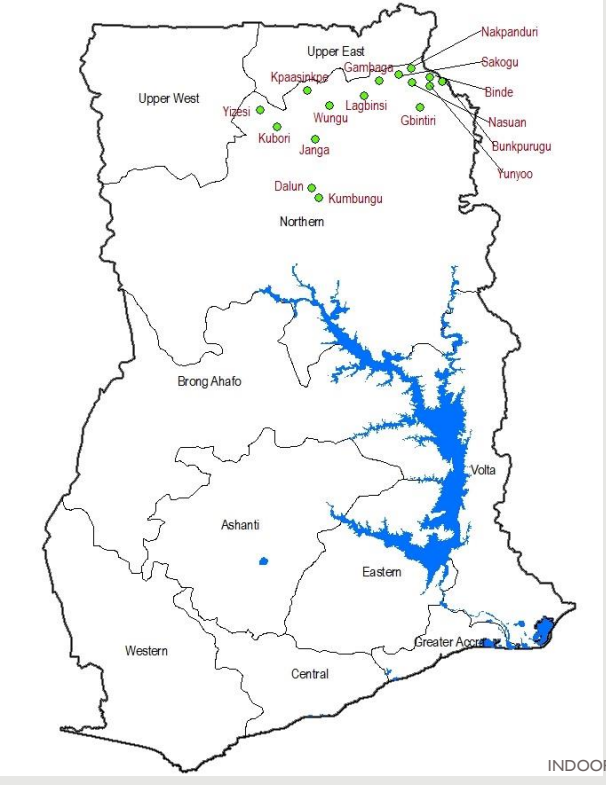
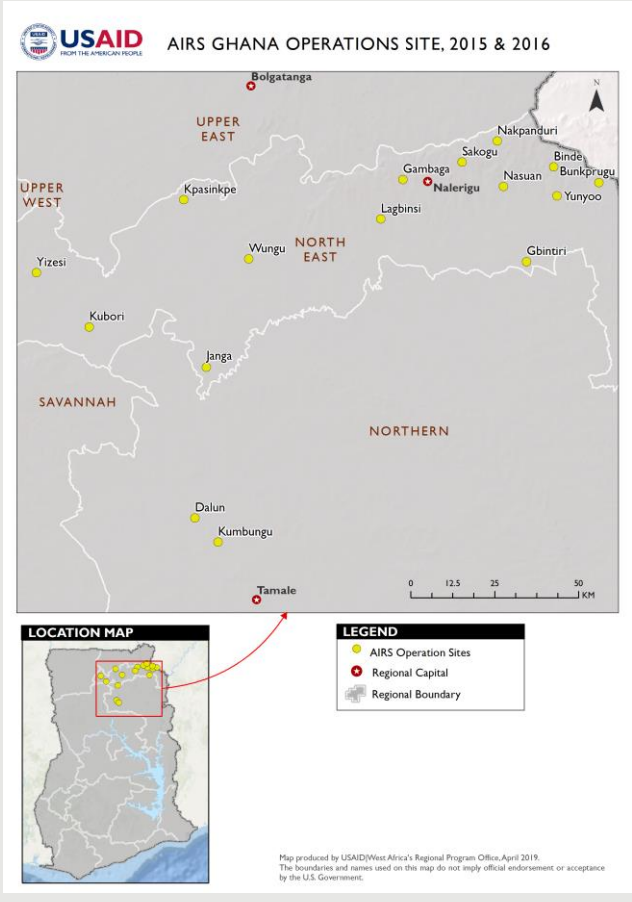
TARGETED DISTRICTS





Key Areas

- Management and supervision;
- Resident health and safety/Information, Education and Communication (IEC);
- Worker health and safety;
- Storage and stock control: central, district and parish stores;
- Transportation of pesticides and equipment;
- Spraying operations;
- Clean-up facilities, post-spraying activities and liquid waste disposal; and
- Solid waste disposal.

TOOLS USED

IRS is a highly technical process that demands thorough supervision and monitoring in order to achieve the intended impact.

Supervisory Tools-checklists

Spray Operator Morning Mobilization and Vehicles Inspections

- Purpose: To ensure spray teams leave for the day with the correctly accounted for
- Personal protective equipment (PPE), equipment, insecticide, and supplies, and are safely transported to the spray site.
- Person responsible for completing this checklist: Site Manager, Field Supervisor, ECO, Spray Operations Coordinator (SOC)

End-of-Day Cleanup Purpose: To ensure spray teams correctly follow environmental compliance

- procedures for cleaning equipment, account for insecticide stocks, and store equipment for the next day
- Person responsible for completing this checklist: Site Manager, ECO, visiting HQ staff and SOCs (when visiting an operational site)

Home Owner Preparations and Spray Operator Performance

- Purpose: To ensure that SOPs spray houses (structures) that have been correctly
- Prepared for spraying (inside and out) and use correct spray and insecticide handling techniques
- Person responsible for completing this checklist: Spray Field Supervisors, IEC/
- Coordinator, ECO, Operations Manager, and SOCs (when visiting the field for supervision)

Supervisory Tool Purpose and Person Responsible

Storekeeper Performance

Purpose: To ensure that Site Storekeepers are following best warehousing practices and accounting for stocks and equipment.

Team leader, Spray Operations Coordinator (SOC)

Directly Observed Spraying

Purpose: To ensure proper application of insecticides by correctly applying the spray techniques.

- Person responsible for completing this checklist: Team Leader

FINDINGS

ENVIRONMENTAL COMPLIANCE

- The spray operators demonstrated their understanding of established best environmental management practices
- Pumps are checked and tested prior to being issued out to spray operators
- Stores visited had a first aid box, recommended medicines and trained storekeepers
- Inventory of insecticide bottles in order to maintain an up-to-date record of stocks

FINDINGS

- All walls, thatch roof, and wooden or straw doors were sprayed
- Floors, metal roofs, doors, glass, inside of cupboards, food storage structures, curtains, latrines, and animal pens were not to be sprayed
- Belongings, except immovable ones, moved outside before spraying

Ghana

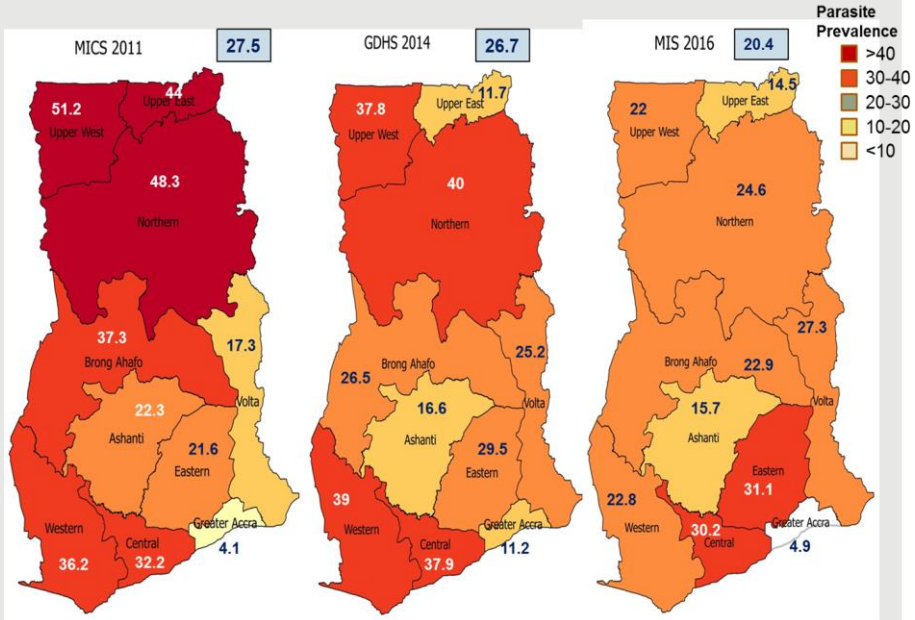
PMI country since 2007

Population (2018): 28.2 million
Population at risk of malaria (2016): 100%
Malaria incidence/1,000 population at risk (2015): 266.4
Total PMI investment in country (FY11-FY17): $275.5 million
Dollars spent per individual at risk (FY17): $9.77
Deaths averted 2013-2015 (Winskill et. al. 2017): 19,400

National malaria control strategy (2014-2020) goal: Reduce malaria mortality and morbidity by 75% from 2014 levels.

Likelihood of achieving the goal (as per the Country PMI team): Medium

Percent children (6-59 months) positive for malaria, 2011 – 2016, Ghana



Solid Waste Disposal

Solid wastes generated include:

- Empty insecticide bottles,
- Damaged pumps (Hudson X-pert and IK Goizper)
- Old, non-reusable personal protective equipment
- Cardboxes

Most solid wastes are presently being recycled

SUCCESS STORIES
RECYCLING

- **Since 2012 PMI recycled 340,626 bottles into 29,113.3 kilograms of plastic**

- In 2018, **711 damaged steel pumps weighing 2.8 tons were crushed, melted and molded into 2.2 tons of iron rods.**

- **RECYCLED**

5,078 empty cardboard boxes weighing 8.6 tons.

- **6.5 tons** of toilet paper, cardboard boxes and other paper products.

RECYCLING

Picture Credit – John Azu

CARBON SAVINGS

35,084kg carbon dioxide


Any questions?
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