Country experiences with pre-referral interventions and referrals

Presentation at RBM Case Management Working Group

NMEP, Nigeria
**NMSP Strategic Goal and Objectives**

To achieve a parasite prevalence of less than 10% and reduce mortality attributable to malaria to less than 50 deaths per 1,000 livebirths by 2025.

### Prevention
- Insecticide-treated mosquito nets (LLINs)
- Indoor Residual Spraying
  - In areas of high and stable transmission
- IPT in pregnancy (IPTp)
- IPT in infancy (IPTi) now PMC
- **Vaccine deployment**
  - In areas of high seasonal transmission
- Seasonal Malaria Chemoprevention

### Diagnosis & Treatment
- **Parasite based diagnosis**
  - Microscopy
  - Rapid Diagnostic Tests
- Artemisinin-based combination therapies (ACTs)
- Severe Malaria
  - Artesunate

Case management service delivery areas:
- Health facilities/Pre-referal
- Community Case Management/pre-referal
- Private sector

### Surveillance, M & E
- Routine HMIS
- Malaria surveillance and response systems
- Household surveys
- Health Facility Surveys

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**Strengthening health systems**

Advocacy, Communications and Social Mobilization
Procurement and Quality assurance
Trends in Malaria Prevalence

Percent of children age 6-59 months who tested positive for malaria by microscopy

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<th>Year</th>
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Structure of Nigerian Health System

• Tertiary health system (Federal govt. owned)
• Secondary health system (State govt. owned)
• Primary healthcare system (LGA owned)
• Community level health system (TBAs, Village Health Workers, CORPS, Voluntary community mobilizers = CHIPS Agents)
• Available in all states of the federation
Severe Malaria Coordination Structure

- Malaria Technical Working Group
- Case Management Subcommittee (CMSC)
- Severe Malaria Working Group

- Annual Severe Malaria Stakeholders Meeting
- Task teams
- Committees
Guidelines for Pre-Referral Treatment

• At community or Primary health facility levels, give pre-referral treatment to a sick child with danger signs and refer immediately

• Options in a ranked order include:
  
  • **For children:** Give; a single dose (10mg/kg BW) rectal Artesunate or Artesunate IM (children <6 years only); or Artemether IM; or Quinine IM
  
  • **For adults:** Give Artesunate IM; OR Artemether IM; OR Quinine IM
ALGORITHM FOR MANAGEMENT OF SEVERE FEBRILE ILLNESSES AT COMMUNITY OR FIRST LEVEL HEALTH FACILITIES

Fever
Temp \( \geq 37.5^\circ C \)
Fever to touch
History of fever in last 24 hours

No General Danger Signs
Do RDT

At Community:
If Positive
Give RECOMMENDED ACT

If Negative
Check other MAIN SYMPTOMS

At PHCs or OPD:
Pre-Rreferral Treatment**
Give IM Artesunate or Artesunate Suppository or IM Artemether or IM Quinine
Give First Dose of Recommended Antibiotics

General Danger Signs*:
- Impaired consciousness (confusion or drowsiness or coma)
- Inability to drink or breastfeed
- Vomiting everything
- Convulsions
- Inability to sit or stand up

No improvement after 2 Days
OR
Getting Worse
REFER to Next Level

Treat Other MAIN SYMPTOM if present
COUGH
DIARRHOEA
EAR PAIN
MEASLES

CANNOT Treat other main Symptom OR
NO MAIN SYMPTOM
REFER TO NEXT HEALTH FACILITY
Referral Linkages from the Community to Secondary/Tertiary Facility in Nigeria

Diagram showing the referral process from different levels of healthcare facilities, including PHCs, WDCs, and General Hospitals, with various health workers such as Midwives and CHWs involved in the process.
CHIPS Program integrates all existing community-based health services and personnel.

Absorbed all adhoc system, integrated into the workforce for accountability.

CHIPS agents identify and provide treatment for U5, refer a sick child with danger signs urgently.

This approach promotes efficiency by ensuring the use of a harmonized database of community-level human resource for health partnering with the NPHCDA and the SPHCDAs to deliver on PHC mandates.

The harmonization has resulted in:
- one plan
- one training curriculum and
- one M&E for all community level services and personnel.

Harmonization of community health structures/transition to CHIPS
### Status of Program Implementation as of June 2023

![Map of Nigeria with states highlighted]

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<th>Status of CHIPS Personnel</th>
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What We Need to Know – **Community level malaria cascade (Ohaozara LGA) and community/health facility TPR**
Severe Malaria Retrospective Study (SMRS)

• The study involved data extraction from patients’ Case note
• A 5 year retrospective data collation from 18 Tertiary Health Facilities and 18 Secondary Facilities
• Referral indicates that most of the patients were Self-referred
  • **Tertiary Facility:** 3459 (68.4%) were self-referred. Another 1602 (31.6%) were referred by the lower levels of the health care system.
  • **Secondary facility:** Self-referral, 3187 (91%) cases outweighed health facility referral, 252 (7.2%) cases

Our Vision - a malaria free Nigeria; Our goal – to reduce malaria burden to pre-elimination levels and bring malaria-related mortality to zero
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Severe Malaria Stakeholders Meeting

- Held on 5th – 6th July 2023
- National stakeholders with representation across all States (DPH, DMS, Medical Consultants), IPs and other International stakeholders
- Key deliverable - stakeholders agreed to collaborate and work in synergy
- Thereafter, a communique was issued and disseminated Nationally, across States highlighting (challenges) including referral in Nigeria and Recommendation

Our Vision - a malaria free Nigeria; Our goal – to reduce malaria burden to pre-elimination levels and bring malaria-related mortality to zero
Challenges on Referrals (From Communique)

1. Unavailability of rectal artesunate in most states for use in initiating pre-referral treatments
2. Weak referral linkages in all levels of the healthcare system
3. Weak data management systems for severe malaria documentation and reporting in secondary and tertiary health facilities
4. Inadequate human resources for health vis-a-vis frequent attrition of staff and non-recruitment by the state governments
5. Wastages associated with the reconstitution, dosage, and administration of artesunate injection

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Recommendations on Referrals (From Communique)

1. The need to adopt the newly released WHO information note on rectal artesunate (July 5, 2023) that reinforces the use of Rectal Artesunate for eligible age groups for pre-referral treatment.

2. The determination on implementing the national guidelines on pre-referral treatment including making rectal artesunate widely available for use in children under 5 years.

3. The introduction of multiple strengths of artesunate injection (30mg, 60mg, and 120mg vials) offers opportunities to minimize wastage and reduce costs to patients.

4. The added need for focused surveillance and strategies targeted at people >5 years, including prioritizing commodities forecasting and procurement to cater to these age groups.

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Next Steps

1. The Country to explore domestic and donor resources to procure Rectal Artesunate
2. Capacity Building of Health Care Workers across cadre on pre-referral services and management of Severe Malaria (ongoing)
3. Increase deployment of implementation of CHIPS intervention across the country through donor and State intervention (Scale up plan developed)

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THANK YOU