



Country experiences with pre-referral interventions and referrals

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COUNTRY PRESENTATION

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Presentation outline

- Introduction- country profile
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- Malaria Burden in Sierra Leone
- Summary of programme's performance
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- RAMS implementation experiences
- Specific lessons learned and experiences
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- Way forward



INTRODUCTION

COUNTRY PROFILE

2020 Population Estimate: 8,282,553 (projected from 2015 national census)

Key Health Indicators

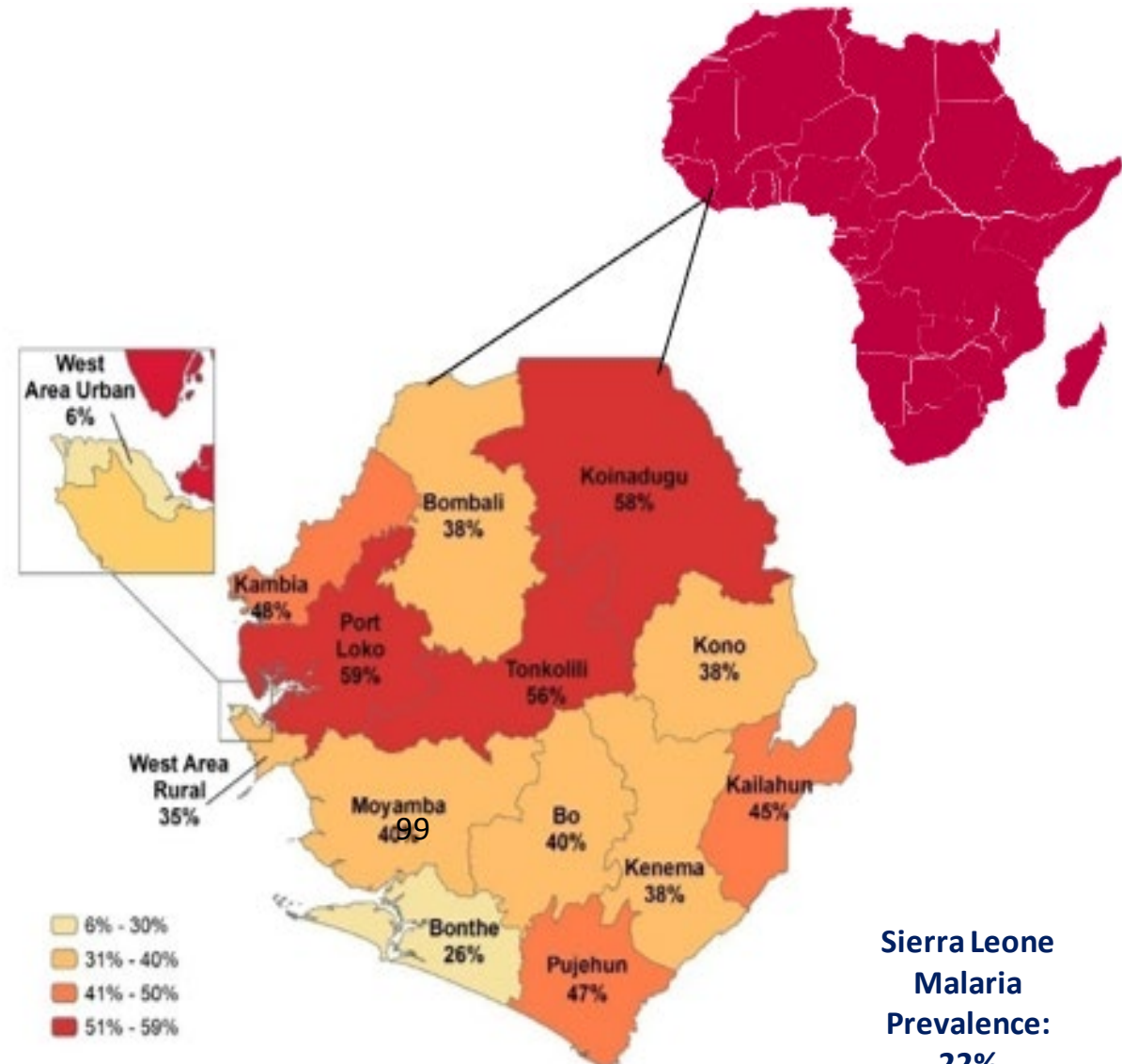
Infant Mortality Rate 92/1000 Live Births
Child Mortality Rate 156/1000 Live Births

- Among the highest five countries globally
- Malaria is still the leading cause of morbidity and mortality

Leading causes of <5 deaths:
malaria , pneumonia , diarrhoea

- Malaria is endemic with stable and perennial transmission in Sierra Leone

- **Current Slide Positive Rate is 22% (MIS, 2021)**





- There are ~1.894 million annual malaria-related outpatient visits, 1 million of which are from CU5
- 22% of children ages 6-59 months tested positive for malaria via microscopy (SLMIS 2021)
- 3% of children age 6-59 months has severe anemia (SLMIS, 2021)
- Severe Malaria cases 2.2% - 2020 Jan - Dec (HMIS-MOHS 2020).

**VISION SLNMESP 2021 – 2025:
Sierra Leone has Committed to Reduce New Malaria
Infections**

Vision:

Accelerate the implementation of Malaria Control Interventions towards a Malaria-free Sierra Leone.



Mission

To direct and coordinate efforts towards a malaria-free Sierra Leone through effective partnership

This will require concerted actions from government, health professionals, partners, communities, families and individuals to ensure uptake of preventive measures and timely treatment for all

SLNME Strategic Plan objectives

1. Reduce malaria mortality rates by at least 75% by 2025
2. Reduce malaria case incidence by at least 75% by 2025
3. Increase the percentage of the population practicing at least three recommended malaria prevention and control behaviors to 90% by 2025
4. strengthen malaria surveillance and use of malaria information to improve decision-making for programme performance
5. Ensure timely and adequate supply of quality-assured malaria commodities to public and private health facilities at all levels by 2025
6. strengthen and maintain capacity for programme management, coordination, and partnership to achieve malaria programme performance at all levels by 2025
7. Improved mobilisation of resources and maximise the efficient use of available resources for greater public health impact by 2025

Summary of programme's performance

Items	Baseline /Year	Year and Result		Source
		2021	2022	
Parasite prevalence: Proportion of children aged 6-59 months (<5 years of age) with malaria infection	40% (2016)	22%	22%	SLMIS 2021
Malaria case incidence: number and rate per 1000 people per year	303 (2019)		222	HMIS
Malaria admissions : number and rate per 10,000 persons per year	51 (2019)	18	18	HMIS
Malaria test positivity rate	61.24 (2019)	62.3%	62.4%	HMIS
Proportion of admissions for malaria	38.3%(2019)	22%	27.5%	HMIS
Confirmed malaria cases (microscopy or RDT): rate per 1000 persons per year	296.6 (2019)	234	211	HMIS
Reported malaria cases (presumed and confirmed)	2,432,609 (2019)	2,043,818	1,894,779	HMIS
Inpatient malaria deaths per year: rate per 100,000 persons per year	17.8 (2019)	18	18	HMIS
Malaria mortality: number and rate per 100,000 persons per year	34.5 (2019)	19	20	HMIS
Proportion of inpatient deaths due to malaria	38.3% (2019)	11.8%	12.7%	HMIS

RAMS Strategy Implementation

RAMS roll out nationwide



RAMS Overall Strategy

- The use of Rectal Artesunate Malaria Suppository (RAMS) as part of strengthened severe malaria case management systems through increased demand, thereby reducing severe malaria case fatality rates in children <6 years.

The Guidelines for Malaria Case Management recommends the use of RAMS as pre-referral treatment for severe malaria for the <6 years old children at community and PHU levels.



Pre-referral Treatment Single dose treatment

- Artesunate (i.m)
- Artesunate by rectal administration
- Artemether (i.m)
- RAMS is administered at the PHU and referred to a district hospital

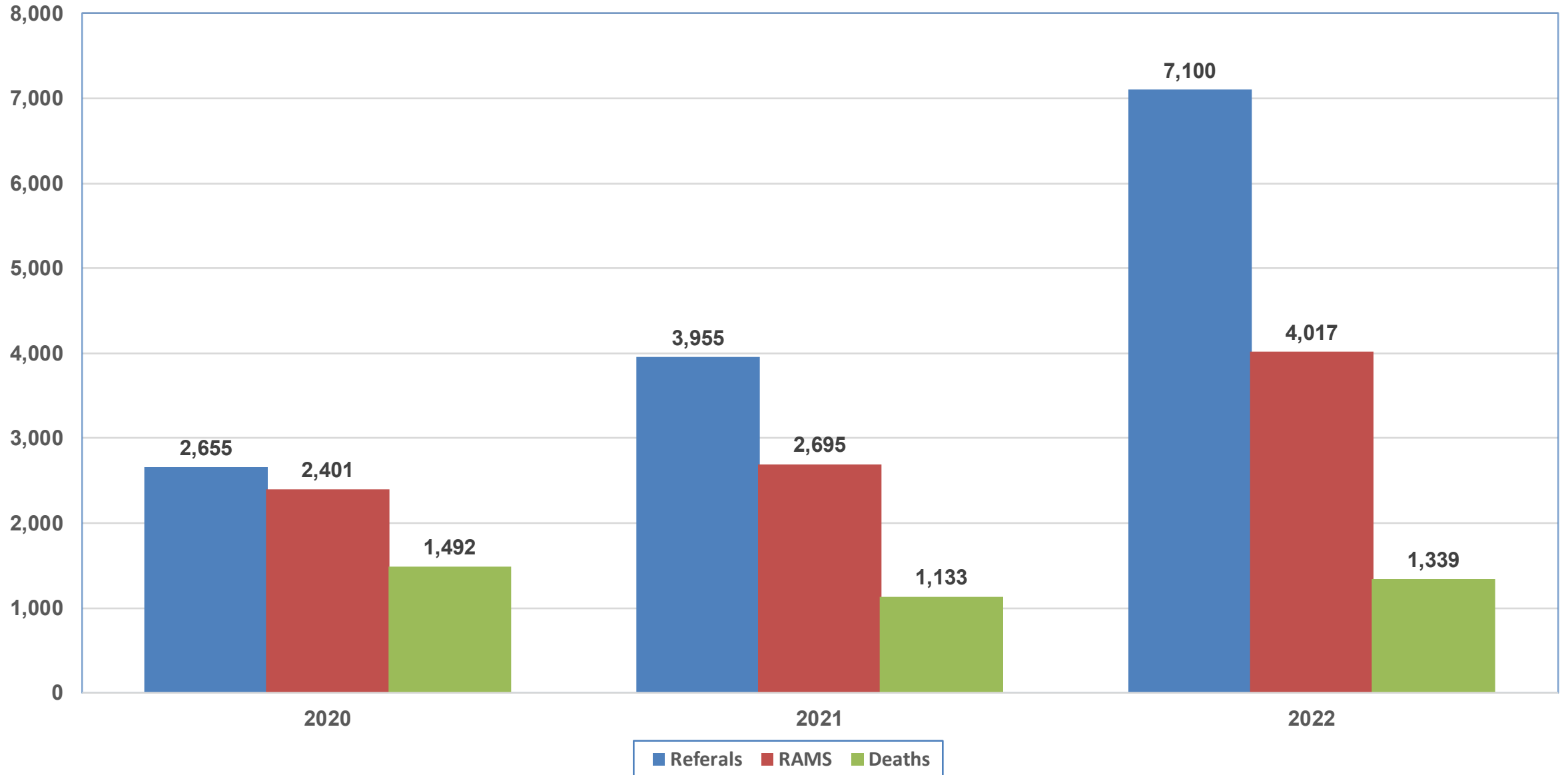
REFERRAL PATHWAY -



Periphery Health Unit
CHP/MCHP/CHC

Referral facility

Referrals and deaths (2020-2023)



LMIS (reporting on logistics data)

- Reporting – Paper based at PHU level,
- Collation of Paper based reports from PHU at District level
- Use of DHIS2 at district and hospital level.
- Information from DHIS2 can be accessed by all managers
- Data from DHIS2 is analyzed on a quarterly basis to compare forecast quantities to actuals

RAMS implementation at PHU level

Quantification and forecasting for 2021 to 2025 developed in August 2020.

Review of supply plan on a quarterly basis.

- At least one PHU staff trained on the following:
 - correct administration of RAMS to eligible children
 - Effective referrals
 - Severe malaria case management
 - Data entry and referral form best practices

Onsite mentorship, coaching and supportive supervision of staff done by DHMTs when funds are available and by NMCP on a quarterly basis.

Job aids and treatment algorithms are provided to health facilities



- CHWs issue referral tickets to take children to PHU
- PHU staff fills referral form and articulates referral process (counseling)
- Referring facility informs the ambulance staff with prompts about the patient that requires referral.
 - Ambulance release requires a call from the referring facility, clarifying who is being referred, for what and what prior treatment already administered to the patient.



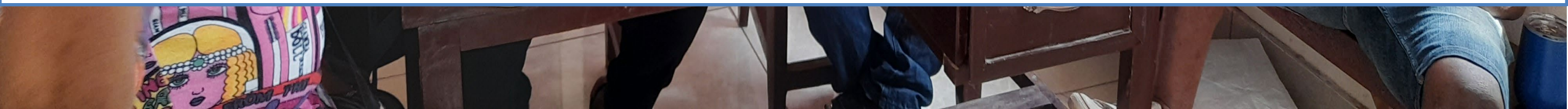
- Antimalaria commodities
 - At the PHU level (RAMS)
 - Availability of RAMS in the facilities
 - RAMS are provided based on % expected number of severe malaria cases out of the population – no consumption data
 - At the receiving health facility - hospital
 - Antimalarial – Injectable artesunate, injectable artemether are available
 - Laboratory and trained laboratory technicians experienced in performing malaria microscopy are available

Key requirements to ensure RAMS is an effective part of the continuum of care

- Training of Hospital staff on severe malaria including referrals
- Provision of requisite supplies – injectable artesunate, Artemether+Lumefantrine, laboratory supplies, supportive treatment (vein canula, IV infusion, etc)
- Functional blood bank



Specific lessons learned, experiences or innovations



Specific lessons learned and experiences

- PHUs equipped with antimalarial commodities including severe malaria medicines to provide quality service.
- Ambulance services available for referrals.
- Cost effective delivery- the RAMS is not bulky and so use the opportunity for the PHU staff to take them along after the training or PHU/DHMT in charges meeting.
- Community awareness and sensitization to support referrals.
- Quality training of staff increases health workers confidence and compliance to malaria case management treatment guidelines to allow for actualization of the impact of RAMS on U6 children.
- Setting up bye laws by community authorities for supporting referrals
- Village Savings and Loans (VSL):- use the fund to support families in case of referrals
- Supportive supervision: Regular Supportive supervision is key to ensure adherence to guidelines to prevent monotherapy and irrational utilization of RAMS.

Key Challenges

Health systems challenges

1. Only 30% functional ambulances per district to do referrals and are challenged with its operations – fuel????

- Ambulance not always almost available when called upon.

2. Recording of case referrals not adequately done - a significant number of referrals are not recorded completely.

- No tracker to follow-up on referrals.
- Feedback mechanism is a challenge due to multiple reasons including PHU staff being overburdened.

3. Unavailability of adjuvant therapy at the hospital level

4. Partially functioning blood bank

Transportation constraints result in missed opportunities and sometimes parents or caregivers take their children to traditional headers.

Key Challenges 2

Other challenges

- Topography- difficult terrain, rivers, mountainous communities are major barriers to accessing treatment.
 - Patients walk on foot, use bike, cross bridges/rivers, use hammock to transport children to HF during rainy season.
 - Some MCHPs/CHPs cannot be reached due to bad road network
- Men make decisions on referral but they are not always available to make such decisions - leading to delays in referrals.
- Poor connectivity makes communication challenging.

Recommendations

- Continue mentorship and coaching of health staff
- Equip hospitals to manage severe malaria appropriately – provision of adjuvant therapy, etc
- Train health staff to manage severe malaria cases effectively.
- Engage the hospital management on how best to ensure the ambulances are working
- Functional referral system: Functional and robust referral systems are imperative for the survival of children. A functional ambulance system in place to ensure that children administered with RAMS are able to reach the health facility on time for further care and treatment.
- Blood bank should be up and running.

Way forward

- Invest in the health system - Build a robust and functioning health system -

**COMMENTS
CONTRIBUTIONS
QUESTIONS**

