The GAMBIA

National Malaria Policy

2014-2020

"A Malaria Free Gambia"

August 2013

The Gambia

National Malaria Policy

2014-2020

"*A Malaria Free Gambia*"

August 2013

Foreword

In the Gambia, malaria remains to be one of the leading causes of morbidity and mortality among children and pregnant women. Over, the past 10 years, malaria control and prevention have been accelerated with increased resources in order to reduce the disease burden. As part of efforts to improve programme performance, the Ministry of Health and Social Welfare in collaboration with Roll Back Malaria partners conducted a Malaria Program Review (MPR) between 2011 and 2012. The results of the MPR have highlighted strengthens, weaknesses, opportunities and treats as well as challenges to malaria control and prevention. . Based on the recommendations of the MPR the 2008 -2015 malaria policy was revised, updated and aligned with Roll Back Malaria targets and National Blue prints. The new malaria policy 2014 – 2020 has a of A Malaria-Free Gambia by 2020 and goal of reducing the incidence of the infection caused by malaria parasites to zero by 2020.The malaria policy outlines key malaria intervention areas which are translated into strategies that address the priority areas for malaria prevention and control and in the health system at large.

The increased levels of partnerships in the area of malaria control provide a solid foundation for sound co-ordination of malaria control within the context of planning and management. In order to achieve impact, and to consolidate gains, emphasis will be placed on universal coverage for the key interventions. Equity is ensured through community-based and gender-based approaches supported by well-established community structures and health systems. The malaria policy will provide the guiding principles and basis for consolidating universal access to effective interventions to meet 2015 Global Malaria Action Plan targets and Millennium Development Goals (MDG) and thus reaching malaria elimination stage by 2020.

The new policy goal and objectives, are considered relevant and achievable, however, this will requires a paradigm shift in our collective approach to malaria control and prevention in the health sector**.**

Tremendous progress have been made in the control of malaria, however, the rate of change needs to be accelerated to adequately respond to the needs of the population and this new policy will provide the framework to guide our development efforts in malaria disease burden reduction and related health system strengthening for better health outcomes for The Gambia.

The revision of this policy has been achieved through concerted efforts by all stakeholders (Public and Private) in shared vision for a malaria-free Gambia and we look forward to the required support in the implementation of this policy. I urge us all to embrace this new policy.

Honourable Omar Sey
Minister of Health and Social Welfare

Acknowledgements

The Ministry of Health and Social Welfare through The National Malaria Control Programme fully acknowledge the commitment and active participation of all Roll Back Malaria Partners in the review and updating of the new malaria policy. Special thanks go to the Dr. Muhammad Kabir Cham, Dr. Hatib Njie and Mr Momodou MK Cham for their technical oversight and immense contributions during the policy review process

The Ministry also wishes to thank the WHO Country office, in particular the Country Representative Dr. Thomas Sukwa and WHO Inter country Support Team (IST), UNICEF and WARN for providing technical support in the development of this new policy.

The Minister of Health and Social Welfare Honourable Omar Sey on behalf of the Ministry of Health and Social Welfare and the people of The Gambia wish to express profound gratitude to The Global fund for providing the much needed financial resources in malaria control and prevention in The Gambia.

Mr. Balla Kandeh
Programme Manger

Table of Content

Abbreviations

ACT	Artemisinin-based Combination Therapy
ASMBCC	Advocacy Social Mobilization Behavioural Change Communication
BHS	Basic Health Services
CHN	Community Health Nurse
CRR	Central River Region
GBoS	Gambia Bureau of Statistics
GDP	Gross Domestic Product
HMIS	Health Management Information System
IDB	Islamic Development Bank
IMF	International Monetary Fund
IPTp	Intermittent Preventive Treatment in Pregnancy
IRS	Indoor Residual Spraying
IVM	Integrated Vector Management
LLIN	Long Lasting Insecticidal Net
LRR	Lower River Region
MICS	Multiple Indicator Cluster Survey
MIP	Malaria in Pregnancy
MIS	Malaria Indicator Survey
NBR	North Bank Region
NBRE	North Bank Region East
NBRW	North Bank Region West
NGO	Non- Governmental Organization
PHC	Primary Health Care
PSM	Procurement and Supply Chain Management
RCH	Reproductive and Child Health
RDT	Rapid Diagnostic Test
RHD	Regional Health Directorate
SMC	Seasonal Malaria Chemoprevention
TBA	Traditional Birth Attendant
THE	Total Health Expenditure
UNDP	United Nations Development Fund
UNFPA	United Nations Fund for Population Affairs
UNICEF	United Nations Children`s Emergency Fund
URR	Upper River Region
VHS	Village Health Services
VHW	Village Health Worker
WCR	West Coast Region
WHO	World Health Organization

1.0 Introduction

1.1 Country Characteristics

Geography

The Gambia is located on the West African coast and extends about 400 km inland, with a population density of 128 persons per square km. The width of the country varies from 24 to 28 km and has a land area of 10,689 square kilometres. It is bordered on the North, South and East by the Republic of Senegal and on the West by the Atlantic Ocean. The country has a tropical climate characterised by two seasons: rainy season (June – October) and dry season (November-May).

Administrative Structure

The country is divided into seven Administrative Regions including two Municipalities. The Regions are West Coast Region (WCR), Lower River Region (LRR), Central River Region (CRR), Upper River Region (URR) and North Bank Region (NBR). The Municipalities are Banjul and Kanifing. The two Municipalities have elected Mayors whilst the other Regions have Governors appointed by the President of the Republic. A varying number of districts constitute a region.

Economy

The Gambia is classified as a low-income economy country, with Gross National Income (GNI) per capita of US$510 in 2012 (World Bank, 2012). Low-income economies are countries with GNI US$ 1,025 or less.The Gambia is among the low-income countries. It ranked 168 out of 187 in the United Nations Development Programme's Human Development Report (HDR) for the year 2011.The main drivers of economic growth for The Gambia remain the agriculture sector and tourism industry. Real GDP growth declined from an average of 5.9 per cent between 2003 and 2006 to about 4.7 per cent in 2007. In 2009, real GDP grew by 6.3 per cent, led by strong growth in agriculture, tourism, and the construction industry. These fluctuations are largely attributable to the effect of climate conditions on agricultural output, but also due to variable growth in key sectors such as tourism, industry, re-export trade activities, and construction in recent years. (Programme for Accelerated Growth and Employment (PAGE, 2011)

Demography

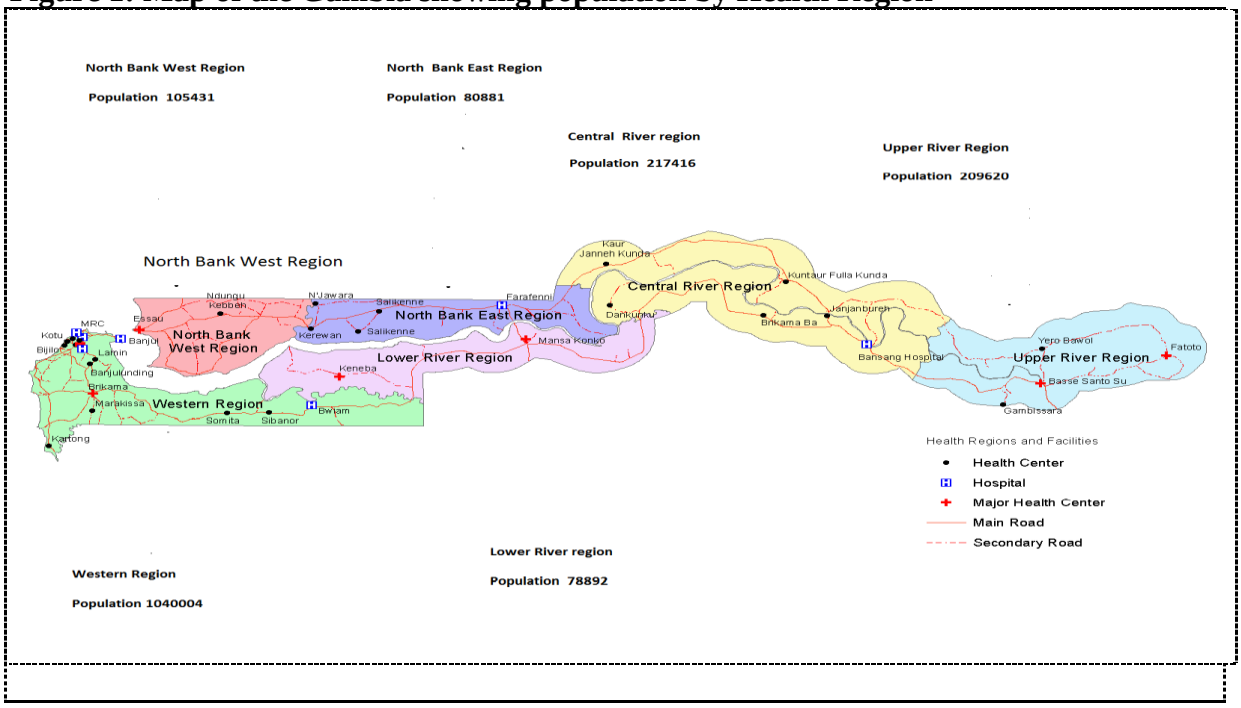
The Gambia has a projected population for 2013 of 1.8 million of which 50.7 per cent are female and 49.3 per cent male. About 42 per cent of the population is below 15 years of age, 24 per cent between 10 and 19 years old, and 22 per cent are between 15 and 24. Only 3.4 percent of the population is 65 and over. Life expectancy at birth is projected at 64 years for both sexes. The under-five mortality rate declined from 141/1000 in 2002 to 131/1000 in 2005/6 and by 2010 it dropped to 109/1000 (MICS 2010). According to the UNFPA State of the World's Population Report 2012, the projected maternal mortality ratio in 2012 was 360/100,000 live births. The National Sentinel Surveillance (NSS) Report 2011 indicates a national HIV1 and HIV2 prevalence of 1.7% and 0.07% respectively (See Table 1 and Figure 1 below).

Table 1 : Socio-Demographic indicators

Indicator	Value	Source	Year
Total Population	1, 783, 424	GBoS, 2011	2013
Life expectancy at birth (both sexes)	64 years	Census	2003
Literacy rate (women 15 –24 years)	63%	Census	2003
HIV 1 prevalence	1.7%	National Sentinel Surveillance report	2011
HIV 2 prevalence	0.07	National Sentinel Surveillance report	2011
Dual (HIV1 &2) prevalence	0.02	National Sentinel Surveillance report	2011
Under 5 mortality rate per 1000 live births (both sexes)	109	MICS	2010
Maternal mortality ratio (per100,000 live births)	360	UNFPA; State of the world's population report	2012

1.2 Health System

Figure 1: Map of the Gambia showing population by Health Region



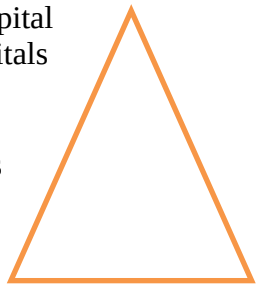
1.2.1 MoHSW Organisational Structure

The MoHSW is responsible for the promotion and protection of the health of the population. The health sector is managed at two levels, the Central and Regional Levels. At the Central Level, the Minister of Health & Social Welfare and the Permanent Secretary are the Government's appointees responsible for the whole health sector. To support, the Central Level is organized into Directorates: Directorate of Health Services, Planning and Information, Social Welfare, Health Promotion and Protection, National Public Health Laboratories; and Food Standards, Quality & Hygiene Enforcement. These Directorates plan, direct and manage all health programmes, and decision-making is made at this level.

The country is divided into seven health regions managed by Regional Health Directors (RHDs).The Regional Health Directorates are responsible for administration, management and supervision of health services in their respective regions. They also have overall responsibility for the primary and secondary health facilities within their respective regions. The Regional Directors report to the Permanent Secretary through the Director of Health Services.

1.2.2 Service Provision

Health Service Pyramid



The Gambia has a three-tier health service delivery system comprising the primary, secondary and the tertiary levels. The primary level comprises the Village Health Services and Community Health Posts; the secondary includes Minor and Major Health Centres while the tertiary level is made up of Hospitals.

The Government is the main provider of health services in the country. In the public sector, health care services are provided by 5 General Hospitals, 1 Specialised Hospital and 1 Teaching Hospital at the tertiary level; 6 Major Health Centres and 42 Minor Health Centres at the secondary level; 38 Community Health Posts and 492 Village Health Posts at the primary level. The public health system is complemented by 60 Private, NGO and Community Managed Health Facilities. In addition, there is a large number of Private-for-profit Pharmacies, medicine outlets, and traditional healers that deliver other health services.

Primary Level (Village Health Service-VHS)

Primary Health Care (PHC) villages have generally been identified from villages with a population of 400 or more and occasionally from ones located in relatively isolated areas. The PHC level workforce is made up of Village Health Workers (VHWs), Traditional Birth Attendants (TBAs) and other community volunteers. In addition to increasing community awareness of health promotion and disease prevention, the VHW provides treatment and/or referral for minor illnesses and injuries whilst the TBAs attend to deliveries and provide antenatal and family planning services in the community. The VHWs and TBAs are supervised

and given continuous education by CHNs Village Health Services who oversee circuits of 4 to10 PHC villages. The CHNs VHS are supervised by the CHN Tutor in the Regional health Team. The PHC villages are organized into 69 such circuits.

Secondary level

The secondary level comprises Minor and Major Health centres, which provide basic health services (BHS) and supervision to the Village Health Service (VHS). In addition, these health facilities also serve as referral points for VHS. There are 6 Major and 42 Minor Health Centres in the country. This level provides static base and mobile outreach RCH services, which include outpatient clinics, infant welfare clinics, and antenatal services. The Major Health Centres are staffed and equipped to provide some specialised care including Comprehensive Emergency Obstetric & Newborn Care, (EmONC); other emergency care for children and adults alike, including emergency surgery. The minor health centres refer cases to the major health centres whilst major health centres refer cases to tertiary level for other specialised management. The private, NGO and community health facilities complement the public health sector and are supervised by the respective Regional Health Directorates.

Tertiary level

The hospitals provide tertiary care for patients whose conditions cannot be managed at the basic health facilities. They have semi-autonomous status, with hospital Management Boards. The 5 general hospitals and the teaching hospital are managed by Chief Executive Officers and a Chief Medical Director respectively.

1.3 Health Financing

The Government through its annual budgetary allocations to the health sector funds health care services. The Global Fund is the main donor to the health sector and partners such as UNICEF, WHO, UNDP, UNFPA, IDB, Global Alliance for Vaccine Initiative (GAVI) and bilateral partners such as the Republic of China on Taiwan, Cuba, Nigeria, Egypt, etc also provide financial and/or technical support to the health sector. As at 2013, an element of the health financing strategy in place is the Cost Recovery Programme – payment of user fees. This strategy was introduced in 1988 as part of the Economic Recovery Programme of the country.

Government allocations to the health sector as a percentage of the total national budget have ranged from 7% to 10% over the past five years[1]. This is still below the 2000 Abuja Declaration of 15% of total government budget to be allocated to the health sector. In 2007, the first National Health Accounts (NHA) for The Gambia was constructed covering the fiscal years 2002 – 2004. The results revealed marginal increase in total health expenditure. As a percentage of GDP, the total health expenditure was 16.1% in 2002, 13.9% in 2003 and 14.9% in 2004. Per capita health expenditure was D895 in 2002, D1026 in 2003 and D1203 in 2004

[1] Budget estimates for the period 2002 - 2007

2.0 Malaria Situation in The Gambia

Malaria remains a disease of public health importance in the country. The endemic nature of the disease is influenced by ecological factors that favour breeding of the vectors.

Epidemiologic profile of Malaria
Malaria is still endemic in the country. Data from MIS 2010 indicate that the malaria distribution pattern is not uniform across the country. Central River Region has the highest prevalence of malaria (9.9%) among children less than five years old, followed by Upper River Region (4.4%). The lowest malaria prevalence is recorded in North Bank East Region, with 0.5%.

2.1 Environmental and climatic factors

The Gambian climate is typically Sahelian with a long dry season that prevails from November to May and a wet season that starts in June and ends in October. Over 90% of clinical cases of malaria occur during the months of September to December (HMIS,2012). The flood plains and fresh water swamps cover a large area of the country, particularly CRR and parts of LRR and NBR. The River Gambia is fringed by fresh water swamps in the eastern half of the country and salt water in the western half.

2.2 Population at risk

Malaria transmission is meso-endemic in The Gambia and affects the whole population. Historical data indicate that the disease was a major cause of morbidity and mortality among children under-five years of age. However, data from the National Malaria Sentinel Surveillance Report (2011) indicate a shift in the disease burden from children under 5to children 5-14 years.

2.3 Stratification and Risk Mapping

In The Gambia, there is only one stratum (meso strata) for malaria.

2.4 Parasites and Vector species

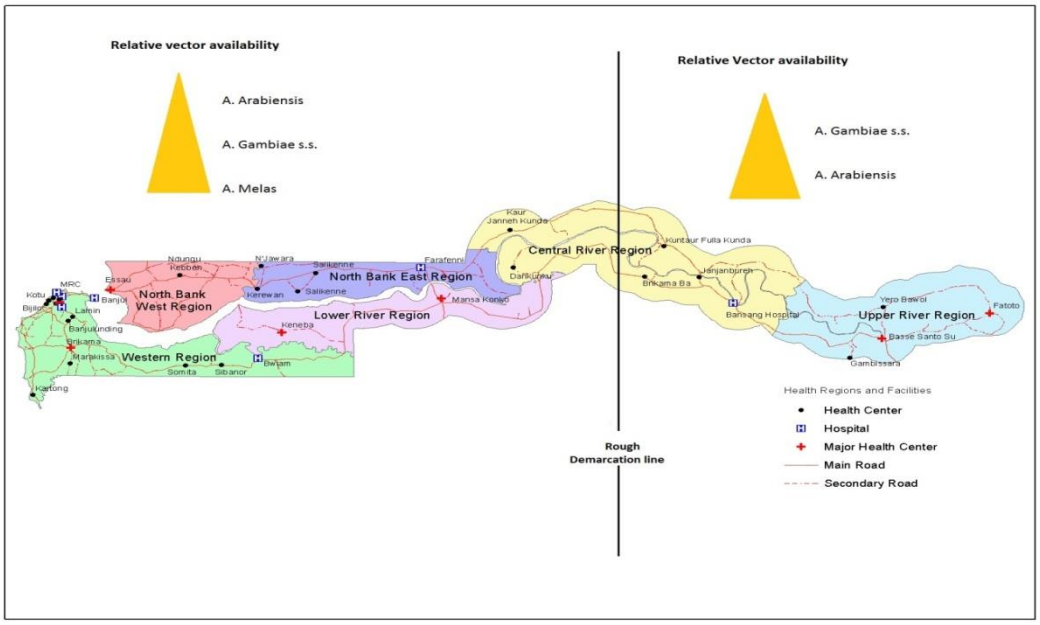
Parasite
The most common malaria parasite in the country is *Plasmodium falciparum* which accounts for more than 95% of all reported malaria cases. *Plasmodium malariae* and *ovale* account for the remainder.

Vector species and distribution
Members of *Anopheles gambiae s.l.* are the main vectors of malaria in The Gambia. These include *Anopheles gambiae s.s., Anopheles arabiensis* and *Anopheles melas.* The first 2 are fresh water breeders and are the major malaria vectors. They are distributed throughout the country. *Anopheles melas* on the other hand is a salt-water breeder, often found in lagoons and edge of flood plains in western parts of the Gambia. The major malaria vectors in the Gambia are indoor biting and indoor resting species. The annual entomological inoculation rate ranges from 1 – 80 infective bites per person per year.

The distribution of malaria vectors is well defined in the Gambia. A species determination by PCR in a study jointly conducted by MRC and NMCP in 2010/11 in Central River Region (CRR) revealed that 57% (n= 312) of the total (n=549) that amplified were *Anopheles gambiae s.s.*, while 42% (n=232) were *Anopheles arabiensis. Anopheles melas* was not detected indicating its preference for high salinity regions. Furthermore, 312 *Anopheles gambiae s.s.* were further tested for ''M'' and ''S'' molecular forms. Of this, 116 were ''M'' molecular form 45 ''S''and 1 Hybrids of M/S. This concludes the concentration of *Anopheles gambiae s.s. and Anopheles arabiensis* in middle reaches of the The Gambia.

Anopheles gambiae s.s. and *An. arabiensis* were found in all six regions. *Anopheles melas* was recorded only at Brikama where it constituted about 50%of the mosquitoes collected. The relative proportions of *An. gambiae s.s.* and *An. arabiensis* varied between the different study sites. Mosquitoes assembled from Farafenni and Basse study sites were primarily *An. arabiensis* (Farafenni: 91.1%; Basse: 97.1%). In Kuntaur area in contrast, most (88.3%) anophelines were *An. gambiae s.s.* In the Figure below, black coloured area of the circle represents *Anopheles gambiae s.s.*, White coloured area of the circle represents Anopheles arabiensis and Gray coloured area represents Anopheles melas. The regions are identified by the following colouration: Pink for NBRW, Red for CRR, Light Gray for URR, Yellow for LRR and Green for WCR. Figure 2 below shows vector distribution in the country.

Figure 2: Relative distribution of Malaria Vectors in the Gambia



2.5 Disease trends

In 2003, clinically suspected malaria cases accounted for 78% of all outpatients' attendance and 58% of all inpatient admissions (HMIS Service Data Report, 2004). About 40% of total outpatient consultations in public sector health facilities in 2006 were due to uncomplicated malaria whilst diarrhoeal diseases and acute respiratory infections together constituted about 25%. Since the scaling-up of key interventions from 2004, there has been a continuous decline in the incidence of malaria in The Gambia. This was reported in studies conducted by the Ministry of Health and Medical Research Council (Ceesayet.al, 2008, 2010).

In 2008, a total of 258,165 episodes of clinical malaria were reported including 5,183 among pregnant women and 120,524 among children <5 years of age (HMIS 2008). A study conducted over the period 2003-2007at four sites in the country with complete slide examination records showed that the proportion of malaria-positive slides decreased by 82% at site 1, 85% at site 2, 73% at site 3 and 50% at site 4 (Ceesay et al 2008). The proportion of malaria admissions at three sites with complete admission records dropped by 74%, 69% and 27% respectively (see fig 5). The under-5 mortality rate, has been declining over the period from 141/1,000 (MICS, 2000) to 131/1000 in 2005. The 2010 MICS has shown a further decline to 109/1000.

2.6 Key strategies for malaria control

The National Malaria Control Policy and Strategy 2008-2015 highlight specific malaria control strategies and interventions. The key strategies are Management and Partnership Building; Malaria Case Management; Prevention and Control of Malaria in Pregnancy; Integrated Vector Management (IVM), Advocacy, Social mobilization and Communication; Surveillance, Monitoring and Evaluation and Operational Research.

2.7 Malaria programme performance

The Malaria policy 2008-2015 was developed with a view to addressing the gaps identified in the previous policy (2002-2007). The 2002-2007 malaria policy primarily focused on interventions targeting the vulnerable population. The 2008-2015 policy shifted from vulnerable populations to universal coverage of malaria interventions. , thus, steady progress was made towards the achievement programme targets. In 2012 the percentage of under-5 children with malaria receiving appropriate treatment within 24 hours of onset of symptoms was 70% .Review of the indicators on the proportion of under-5 children who slept under an ITN was 62.1%. The proportion of pregnant women who received 2 doses of IPTp during ANC visits stood at 61.1%. The percentage of pregnant women who slept under an ITN the night preceding the start of the survey was 59.3%. Although there was no baseline, the percentage of households with at least two LLINs was 54.7% whilst the proportion of household members who slept under an ITN was 66.3% (MIS, 2010). All cause under-5 mortality rate decreased from 141/1000 in 2001 to 131/1000 in 2005 (MICS, 2001; MICS, 2005), Furthermore, in 2010 there was a reduction of all cause under-5 mortality rate to 109/1,000 (MICS, 2010). Over 90% of women aged 15-49 were able to explain the causes, symptoms and prevention of malaria. The main sources of information on malaria as reported by women are radio (67%), health worker (61%), family/friends (56%) and television (36%). Posters (1.7%), T-Shirts (1.6%) and bill boards (0.7%) were the least source of information (MIS, 2010).

3.0 Bottlenecks Analysis – Using the Malaria Programme Review Report

The Malaria Programme Review identified the following bottlenecks to malaria control in The Gambia:

3.1 Programme Management

- Low government budgetary allocation to malaria control
- Weak coordination and management of Malaria Programme at regional level

3.2 Prevention

- Unsatisfactory utilization of Insecticidal Treated Nets
- Low coverage for IRS

3.3 Prevention of Malaria in Pregnancy

- Late booking at Antenatal Clinics
- Low uptake of the second dose of IPTp

3.4 Case Management

- Low national capacity for quality assurance of anti-malarial medicines and related medical products
- Absence of Parasitologist
- Inadequate storage infrastructure to support good storage practice of medical products especially at the health facilities
- Poor prescribing and dispensing practices in both public and private health facilities
- Weak national capacity for medicines safety monitoring
- Effective supervision and monitoring of health workers after training;

3.5 Community Case Management

- The slow roll out of RDTs and ACTs to the communities
- Inadequate and unreliable consumption data for forecasting and quantification of community needs for malaria diagnosis and treatment

3.6 Procurement and Supply and Management (PSM)

- Weak Medicines and related products Quality Assurance;
- Poor prescribing and dispensing practices in both public and private health facilities; weak national Pharmacovigilance system.

3.7 Surveillance, Monitoring, Evaluation and Operational Research (SMEOR)

- Absence of Epidemiologist and Statistician
- Limited capacity for handling and managing data generated from large scale surveys,
- Weak HMIS to provide up-to-date information on malaria situation in the country

- Stratification and risk mapping needs updating

Taking into consideration the above bottlenecks as well as the strengths and opportunities available to accelerate malaria control in the country, the Vision, Goal and Objectives for the revised National Malaria Policy are defined below.

4.0 Vision, Guiding Principles, Goal, Objectives

4.1 Vision: A malaria-free Gambia

4.2 Guiding Principles

Universal access for the population at risk
Everyone has the right to access malaria prevention and control services.

Client satisfaction
Malaria prevention and control services should reflect local needs and involve communities and individuals at all levels of planning and provision of services.

Equitable access
Malaria prevention and control services must strive to address inequity and prioritise services to the most needy.

Evidence-based
Social, biomedical and health systems research should inform policy and strategic choices in order to provide effective malaria prevention and control programme.

Partnership
Effective alliances should be facilitated with National, Sub-regional and International Partners for information sharing and resource mobilization for malaria prevention and control interventions.

4.3 Goal:

Have reduced the incidence of infection caused by malaria parasites to zero in The Gambia by 2020.

4.4 Development Milestones (Outcomes)

By 2015

Malaria control stage consolidated countrywide

- Malaria related morbidity reduced in the entire population to control stage and control stage consolidated countrywide by 2015
- Malaria related mortality reduced in the entire population to control stage and control consolidated countrywide by 2015

By 2018

Malaria pre-elimination stage achieved countrywide

- Ma… …ation to reach pre-elimination stag…
- Malaria related mortality reduced in the entire population to reach pre-elimination stage by 2018

By 2020

Malaria elimination stage achieved for every district in The Gambia

- Malaria related morbidity reduced to 0% by 2020
- Malaria related mortality reduced to 0% by 2020

4.5 Objectives

Access to Services and Care

- Universal access to prevention measures achieved by 2015.
- Access to prevention measures sustained above 90 % in the country by 2018.
- Universal access to quality Malaria Case Management achieved countrywide by 2016

Advocacy, Social Mobilisation and Behaviour Change Communication

- Malaria prevention behaviour promoted countrywide.
- Positive care seeking behaviour promoted countrywide.
- Communities countrywide actively participating in malaria control and prevention activities.

Surveillance, Monitoring, Evaluation and Operational Research (SMEOR)

- Health Management Information System capable of producing up to date information on the situation of malaria in every community by 2015.

5.0 National Priorities for malaria control

To achieve the above goal, development milestones and Objectives, this policy will focus on the following priority intervention areas

5.1 Prevention of Malaria

Integrated Vector Management

Preamble

Integrated Vector Management (IVM) is a key component of malaria control in The Gambia. Vector control relies primarily on two main interventions: Long-Lasting Insecticidal Nets (LLINs) and Indoor Residual Spraying (IRS). Use of these interventions has increased significantly at community level. Government will continue to consolidate and strengthen the achievements realised in the area of integrated vector management. Targeted larviciding and environmental management, where applicable, are supplementary vector control measures.

Long Lasting Insecticidal Nets (LLINs)

This policy will promote universal access and use of LLIN among the population at risk of malaria through the following:

- Long lasting insecticidal Nets remain the first choice in malaria vector control
- Selection of LLINs will be based on World Health Organisation Pesticide Evaluation Scheme (WHOPES) recommendations
- Government will encourage and support public-private partnership in social mobilisation towards access and continued use of LLINs

Indoor Residual Spraying (IRS)

The policy will promote the use of indoor residual spray for malaria vector control, thus the following priority areas are emphasised:

- Indoor Residual Spraying will be used as a complementary vector control intervention
- Selection of chemicals for IRS will be based on WHOPES recommendations
- Government will encourage and support public-private partnership in IRS
- IRS will be included in the Essential Health Commodity package to ensure access for the poor households

Larviciding

Use of biological and chemical larvicides for targeted larviciding as part of IVM for malaria vector control will be conducted through the following:

- Reduction of breeding sites through targeted larviciding, a supplementary strategy, as part of IVM.
- Chemical and biological larvicides will be used to reduce larval densities and adult mosquito populations.
- Selection of chemical and biological larvicides will be based on WHOPES recommendations
- Government will encourage public-private partnership in targeted larviciding

Environmental Management

The policy will promote environmental management for malaria vector control through the following:

- Inter-sectoral collaboration will be promoted to ensure the inclusion of malaria control in relevant sector policies through advocacy
- Inter-sectoral collaboration in the environmental management for malaria vector control

Insecticide Resistance Surveillance

- Vector resistance surveillance will be a component of the IVM strategy
- Monitoring of the efficacy of insecticides used for vector control will be conducted at least once a year to provide information for the selection of insecticide for IRS

Prevention and control of Malaria in Pregnancy

Preamble

Malaria in Pregnancy (MIP) is integrated in the national RCH service package delivered at all public and most private and NGO clinics including outreach services. The high level of client-service provider contact at the country's RCH clinics offers a good opportunity for increasing coverage. MIS 2012 indicates that the proportion of pregnant women who received two doses of IPTp was 61.6%. The use of the three-pronged strategy will be the policy priorities for malaria prevention and control during pregnancy. The MIP strategy will include the following interventions:

Use of Long Lasting Insecticidal Net (LLIN)

- All pregnant women will be protected from malaria by increasing access to LLIN through RCH clinics and mass distribution campaigns

Intermittent Preventive Treatment in pregnancy

- All pregnant women will receive four doses of Sulphadoxine-Pyrimethamine; given as Direct Observed Treatment through scheduled Antenatal Clinic visits.

Treatment of malaria during pregnancy

- Prompt and appropriate treatment of malaria will be provided to all pregnant women.

Seasonal Malaria Chemoprevention (SMC)

Preamble

Malaria transmission in The Gambia is highly seasonal with 90% of clinical attacks occuring during and immediately after the rainy season. The highest rates are recorded in rural areas especially in CRR and URR.This is mainly due to the presence of ecological factors such as flood plains and swamps which are favourable for mosquito breeding.(See Section 2.4 Species Composition and Distribution) and high transmission occurs between September to December. The strategy will be implemented through campaigns using community health workers within the VHS

- A complete treatment course of sulfadoxine–pyrimethamine plus amodiaquine will be given to every child on monthly basis up to a maximum four doses during the peak transmission period.

5.2 Malaria Case Management

Preamble

In line with global trends, there has been a shift in the policy on malaria diagnosis from presumptive to parasite-based diagnosis. In addition, early recognition of the signs and symptoms of malaria and prompt effective treatment is needed to reduce morbidity and mortality associated with the disease.

Diagnosis of malaria

Malaria will be confirmed through parasite-based tools for all suspected cases before treatment for all ages and settings. The following methods will be used:

Microscopy: This will be the mainstay of parasite-based diagnosis and will be the preferred method unless where it is not feasible.

Rapid Diagnostic Tests (RDTs): This will be used where microscopy is not feasible.

Quality assurance and quality control of malaria laboratory diagnosis

- Standards for Clinical Laboratory Services will be developed
- Guidelines for Good Laboratory Practice will be develop
- quality control on slide microscopy and RDTs will be strengthened

Malaria Treatment

Treatment of malaria will be based on parasite-based diagnosis

Treatment of uncomplicated malaria

Artemisinin-based combination therapy will be the treatment of choice for uncomplicated malaria in the country

Treatment of severe malaria

Parenteral Artesunate will be the medicine of choice for the treatment of severe malaria in all age groups and settings. Artemether or Quinine will be acceptable alternatives where Artesunate is not available

Community based diagnosis and treatment of malaria

The Village Health Services have been established to increase access to basic health care, including diagnosis and treatment of malaria at community level. The Village Health Services will be strengthened for effective community based diagnosis and treatment of malaria. Treatment of malaria at community level will be based on parasitological diagnosis using RDTs

Monitoring of antimalarial therapeutic efficacy

Monitoring of antimalarial therapeutic efficacy will be routinely undertaken as part of case management.

Collaboration with the Private sector health care providers

Collaborating with the private sector is essential in increasing access to malaria diagnosis and treatment. The adherence to national guidelines on malaria diagnosis and treatment has been identified as one of the bottle neck affecting access to quality services. To improve collaboration, the following policies will be pursued:

.

- Government will create the required enabling environment to support improvement in the diagnosis and adherence to standard treatment guidelines by the private health care providers.
- Ministry of Health will negotiate malaria treatment and care prices with the private health care providers

5.3 Advocacy, Social Mobilization and Behavioural Change Communication (ASMBCC)

Preamble

Health education and promotion is an important component of The Gambia`s Primary Health Care Strategy. Advocacy, Social Mobilization and Behavioural Change Communication (ASMBCC) is an important component of malaria prevention and control. ASMBCC increases positive behaviours .The Malaria Programme Review shows gap between knowledge and behaviour and thus, the following areas will be strengthened and scaled up.

- BCC activities will be scaled up to promote positive behaviours
- Partnership and harmonisation of BCC activities and approaches will be promoted.
- ASMBCC will be based on findings of operational research
- Community based communication activities will be the focus on ASMBCC

5.4 Procurement and Supply Management of malaria commodities

Preamble

The Ministry of Health has in place Procurement and Supply Management System (PSM) for the supply of medicines and other medical supplies including LLINs. A Contracts Committee has been established in accordance with The Gambia Public Procurement Authority Act 2001 and Regulations 2003. The main challenges to the PSM identified by the Malaria Program Review include; Weak Medicines and related products quality assurance; poor prescribing and dispensing practices in both public and private health facilities and weak national pharmacovigilance system. The following actions will be undertaken:

- Strengthening of the mechanism for the quality assurance of all malaria medicines and other products offered for use or consumption in the country
- Ensuring security of essential medicines and other commodities for malaria prevention for the population will be ensured
- Quarterly updates on malaria essential medicines security situation will be provided

5.5 Surveillance, Monitoring, Evaluation and Operational Research (SMEOR)

Preamble

Surveillance, Monitoring, Evaluation and Operational Research are needed to generate the required information on morbidity and mortality trends for evidence based decision making and planning. Currently, the HMIS has guidelines and other instruments for the management of data and information. However, the 2013 malaria programme review highlighted the following as weaknesses; *(i)* limited capacity for handling and management of data from large scale surveys, *(ii)* data quality and *(iii)* inadequate funds to implement the M & E Plan.

Surveillance

Surveillance of malaria is important for The Gambia given the recent changes in the epidemiology of the disease. A comprehensive framework exists for malaria surveillance. As at 2013, the national malaria surveillance system is limited to 6 strategically located health facilities with plans for expansion. There is need to strengthen the integration of the entomological, and climate change components.

- Capacity of malaria surveillance in all health regions will be strengthened

Monitoring and Evaluation

Monitoring and Evaluation of malaria morbidity and mortality trends will be an important component of the policy. The HMIS will be used to track morbidity and mortality trends data in communities. The M& E framework will respond to the, epidemics and disaster due to climate change.

- A mechanism for mandatory reporting of malaria data from private and NGO health facilities will be put in place
- The capacity of the HMIS will be strengthened for timely provision of National Malaria Situation report

Operational Research

Operations research will give Program Management the power to make more effective decisions and build more productive systems based on:

- A mechanism for operational research for more effective decision making and careful predictions of outcomes and estimates of risk will be developed

5.6 Epidemic preparedness and emergency response

As the country progresses from control to pre-elimination and elimination stage, epidemic preparedness and emergency response will be critical to the programme. Therefore, the scope of the national malaria sentinel surveillance system will be widened to include epidemic preparedness and emergency response. The action below will be undertaken:

- An epidemic and emergency preparedness plan to respond to malaria will be developed

6.0 Management of the National Malaria Control Programme

Preamble

Effective malaria control and prevention in The Gambia is important to achieve pre-elimination targets by 2020. The MoHSW and its partners have developed a strategic framework consistent with the Malaria Policy Vision "a malaria-free Gambia". The National Malaria Control Policy clearly outlines strategies and service delivery areas.

6.1 `Programme Management and Leadership

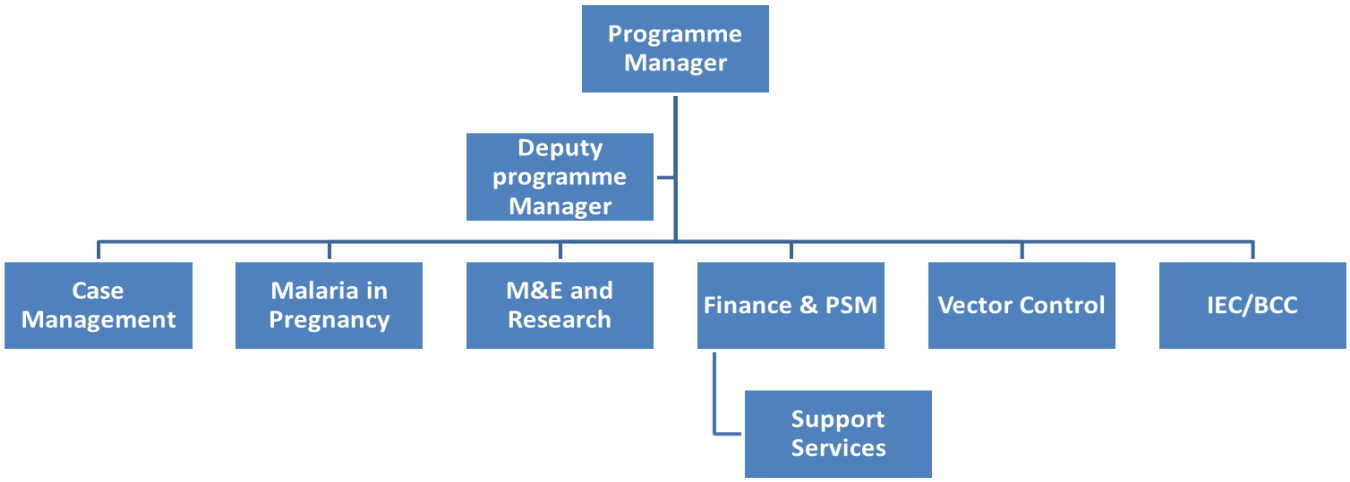
Programme management and leadership are important for the implementation of malaria control and prevention activities. The programme is managed at two levels; central and regional levels. The central level involved in policy formulation, resource mobilization and coordination, which is mainly under the domain of the NMCP in implementing f malaria control and prevention activities. The regional level, the RHTs are responsible for the implementation and monitoring of activities in collaboration with other partners.

The Director of Health Services has an oversight leadership of the programme. At the level of the NMCP, the programme manager is tasked with leadership role and guidance for the coordination of the programme.

6.2 Organisational structure and Organogram

A clearly defined structure for management and co-ordination of the malaria control programme exists. At central level, there is a Programme Manager, a Deputy Programme Manager and well established specialized components that correspond to the key malaria control intervention areas. As shown in Figure 3 below, each component is headed by a highly trained focal point who reports to the Programme Manager. In addition, there is a fully established support system comprising procurement, financial management and logistics. The Programme has 16 technical and eight support staff. It has also supported the training of vector control officers at regional level to strengthen malaria control activities in communities.

Figure 3: NMCP Organogram



6.3 Human Resources

Preamble

The programme has a good complement of technical staff. The programme areas are headed by professional staff who hold master's degree in their areas of specialisation. However, certain specialities such as an epidemiologist, statistician and parasitologist are not available.

Over the past 10 years, the programme has trained 4 of its staff to master's level in public health and entomology. An additional 33 staff have benefitted from certificate courses in malaria control, planning and implementation. Staff at the central unit, RHTs, health facilities and partner institutions have benefitted from diploma and certificate courses outside the country. In-service training programmes geared towards enhancing skills and competences in different intervention areas continue to be conducted across the country.

- Ministry of Health will recruit and or train specialities such as an epidemiologist, statistician and parasitologist to support program management

6.4 Partnership Building

The implementation of malaria control activities involves a wide range of partners in government, the donor community including UN agencies, NGOs/CBOs and private sector. Non-Governmental Organizations (NGOs) and private practitioners contribute significantly to the provision of curative and preventive health care in the country especially in the urban areas.

6.5 Resource Mobilisation

Preamble

Resource mobilisation for the implementation of the policy will be an overarching priority of this policy. To support resource mobilization, the following actions will be taken:

- Development of a Strategic Plan 2014-2015
- Development of a 2014-2016 Investment Program

7.0 Coordination framework of the National Malaria Policy

To ensure effective implementation of this Policy, the following Committees will be constituted:

7.1 Malaria Policy Advisory Committee (Expert Committee)

The National Policy Advisory Committee will advise the Minister of Health specifically on:

- Appropriate malaria policies and standards based on data from National Malaria Program implementation as well as reviews of best available evidence
- Engagement of stakeholders in malaria-related initiatives
- Major issues and challenges to achieve the national malaria goal
- Identification of priority activities to address identified challenges

Membership of the Expert Committee will comprise of the following specialists: Epidemiologist, Social Scientist, Bio-Statistician, Senior Clinician, Entomologist, Public Health Specialist, Senior Laboratory Scientist and Pharmacist

7.2 National Malaria Steering Committee

The National Malaria Steering Committee will ensure coordination of effective implementation of the National Malaria Strategic Plan.

The functions of the National Malaria Steering Committee will include:

- Review of the annual national malaria prevention and control plan of work
- Support the resource mobilization for the financing of the annual programme
- Monitor performance on the milestones
- Shares quarterly performance reports with the Malaria Expert Committee
- Coordinates annual review of implementation of the National Malaria Strategic Plan

The National Malaria Steering Committee will constitute Technical Committees to support its work. The Committee will comprise representatives from the MoHSW and partners and it will be chaired by the Director of Health Services whilst the Manager of the NMCP serves as secretary.

References

AU Conference of Ministers. Fight malaria: Africa goes from control to elimination by 2010. African launch of the Africa malaria elimination campaign, 3rd Session of the AU Conference of Ministers of Health, Johannesburg, South Africa. 2007

Ceesay S J et al. Changes in malaria indices between 1999 and 2007 in The Gambia: a retrospective analysis. Lancet 2008. 372: 1545–54

Chanda E et al. Integrated vector management: The Zambian experience *Malaria Journal*, 2008 7:164

CIAM, 2006a. The Gambia Media Survey, Internal CIAM document. page 15

CIAM, 2006b. The Gambia Peer Health Education for Malaria Report. Internal CIAM document.

Gallup J, Sachs J, The economic burden of malaria. *Am J Trop Med Hyg* 2001*64:* 85–96.

GBOS, 2003. Government of The Gambia. The 2003 Population and Housing Census, Mortality Estimates, Gambia Bureau of Statistics.

CRS, 2006. Catholic Relief Services. Report on The Knowledge, Practice and Coverage survey (KPC/ LQAS) Global Fund Malaria Project in Western Division. CIAM internal document.

GFATM, 2003. Gambia Round 3 application. Scaling up Prevention and Treatment of Malaria in Coastal Region of The Gambia.

GFATM, 2006. Gambia Round 6 application. National Scaling up of the Prevention and Treatment of Malaria in The Gambia

MoSH, 2004. The Gambia Routine Health Information Systems Report.

MoSH, 2007. National Health Accounts Financial Years 2002, 2003 and 2004. Nov 2007.

MoSH, 2008a. Health Investment Program, 2008-2011. page 11

MoSH, 2008b. Draft National Health Policy: Health Master Plan "Better Must Come…..Health is Wealth" 2007-2020

Kirby MJ et al Efficacy of two different house screening interventions against exposure to malaria and anaemia in children in The Gambia: a randomized controlled trial. The Lancet. 2009. 374(9694):998-1009.

Lesack, LFW et al. Transport of carbon, nitrogen, phosphorus, and major solutes in the Gambia River, West Africa. Limnol. Oceanogr. 1984. 29:816-830.

Majambere, S et al Microbial larvicides for malaria control in The Gambia *Malaria Journal*, 2007. 6:76.

Majambere S., Pinder M.,et al. The impact of larviciding on vector populations and malaria incidence in children in rural Gambia. Amer J Trop Med Hyg in press Oct 2009

Malaria Situational Analyses Report, 2002.

MICS 2, 2002. The Gambia Multiple Indicator Cluster Survey 2000. The Gambia Bureau of Statistics: 1–116.

MICS 3, 2007. The Gambia Multiple Indicator Cluster Survey 2005/6. The Gambia Bureau of Statistics: 1–243.

MIS 2, 2008. The Gambia Multiple Indicator Cluster Survey 2007. Gambia Bureau of Statistics:1-73.

Morton K.2005 Investigation of the prevalence of anaemia in pregnancy and compliance with iron supplementation in The Gambia. Univ Birmingham. B Med Sc Dissertation, 2005

NMCP,2002. National Malaria Programme Strategic Plan of Action, 2002-2007.

PER, 2001

PRSP, 2006. Poverty Reduction Strategy II. 2007- 2011. MoSH

Roberts L, Enserink M. Did they really say … Eradication? Science 2007: 318, 1544 - 5

Shepard DS, et al The economic cost of malaria in Africa. Trop Med Parasitol 1991. *42:*199–203.

Lancet Editorial,. Is malaria eradication possible? The Lancet; 2007 370, 1459.
UNDP 2008 Human Development Report http://hdr.undp.org/en/media/HDR_20072008_EN.pdf
UNICEF. Malaria and children: progress and intervention coverage. New York: UNICEF, 2007: 1–70. http://www.unicef.org/health/files/Malaria0831.pdf (accessed May 2, 2008).
Vision 2020 (1996 – 2020)
von Seidlein L. et al Treatment uptake by individuals infected with Plasmodium falciparum in rural Gambia, West Africa. *Bull World Health Organ*, 2002. 80, 790.
von Seidlein L. et al. The effect of mass administration of sulfadoxine-pyrimethamine combined with artesunate on malaria incidence: a double-blind, community-randomized, placebo-controlled trial in The Gambia. Trans R Soc Trop Med Hyg 2003, 97, 217.
WHO. Global Strategic Framework for Integrated Vector Management. 2004. Geneva: World Health Organisation. For IVM
WHO World Malaria Report 2008a. Section 2. Policies Strategies and targets for malaria control. pp3-15.
WHO World Malaria Report 2008b. Section 3. Estimated global burden of malaria in 2006. pp 9-16.
WHO. 2008c. WHO position statement on integrated vector management. Weekly epidemiological record 20: 177–184. for IVM
Wiseman V, et al. Malaria prevention in The Gambia: patterns of expenditure and determinants of demand at the household level. Trop Med Int Health. 2006. 11,419-31. P13

We need the full correct titles and or location (i.e. where can these be obtained) for

MoSH, 2004. The Gambia Routine Health Information Systems Report

Vision 2020 (1996 – 2020)

PER, 2001

Malaria Situational Analyses Report, 2002.

Malaria Programme Review Report 2013

Global Malaria Action Plan

Annexes

Annex 1: Glossary

Ministry of Health – Refers to the Ministry of Health and Social Welfare

Malaria control: reducing the malaria disease burden to a level at which it is no longer a public health problem.

Malaria elimination: the interruption of local mosquito-borne malaria transmission; reduction to zero of the incidence of infection caused by human malaria parasites in a defined geographical area as a result of deliberate efforts; continued measures to prevent reestablishment of transmission are required.

Certification of malaria elimination: can be granted by WHO after it has been proven beyond reasonable doubt that the chain of local human malaria transmission by Anopheles mosquitoes has been fully interrupted in an entire country for at least 3 consecutive years.

Malaria eradication: permanent reduction to zero of the worldwide incidence of infection caused by a specific agent; applies to a particular malaria parasite species. Intervention measures are no longer needed once eradication has been achieved**.**

Malaria Control Stage: Test Positivity Rate (TPR) <5 % in fever cases

Malaria Pre-Elimination Stage: <1 case /1000 population at risk

Malaria Elimination Stage: 0 (Zero) locally acquired cases

Access is described as a general concept that summarizes a set of more specific dimensions describing the fit between the patient and the health care system. The specific dimensions are availability, accessibility, accommodation, affordability and acceptability

Commodity Security for Malaria
Commodity security for malaria exists when clients can obtain and use malaria commodities when and where they need them

Seasonal Malaria Chemoprevention (SMC)
SMC is defined as “the intermittent administration of full treatment courses of an antimalarial medicine during the malaria season to prevent malarial illness with the objective of maintaining therapeutic antimalarial drug concentrations in the blood throughout the period of greatest malarial risk. (WHO SMC Field Guide, 2012)