World Health Organization

Background documentation for Day 1

This file contains the slides that were shown by the presenters during Day 1 of the meeting as well the background documentation shared with MPAG members ahead of the meeting.

Tuesday, 11 October 2022			
	Session 1	**Open**	
12:00 – 12:10	Welcome by the Assistant Director-General for Universal Health Care/Communicable and Noncommunicable Diseases	Dr Ren Minghui	**For information**
12:10 – 12:20	Welcome by the Chair, MPAC	Dr Dyann Wirth	
12:20 – 13:15	Report from the a.i. Directors, GMP Presentation	Dr Andrea Bosman Dr Pascal Ringwald	
	Session 2	**Open**	
13:30 – 14:15	High burden to high impact (HBHI) approach: progress, challenges, lessons learned and way forward | Presentation	Dr Maru Aregawi	**For guidance**
14:15 – 14:45	The role of comparative assessment in the WHO evaluation of vector control products using non-inferiority analysis for products of the same class | Presentation	Dr Jan Kolaczinski Dr Marion Law	**For information**
14:45 – 15:15	Update on WHO Guidelines for malaria Presentation	Ms Erin Shutes Dr Jenny Stevenson Dr Jane Cunningham Dr Peter Olumese	
	Session 3	**Open**	
15:30 – 16:00	Optimizing uptake of WHO guidance on malaria and the work of the Dissemination Taskforce Meeting report | Presentation	Ms Saira Stewart	**For information**
16:00 – 16:30	Feedback on the uptake of chemoprevention recommendations Presentation	Dr Ebenezer Baba Dr Ghasem Zamani	

WHO/UCN/GMP/MPAG/2022.06

Report from the Global Malaria Programme

Malaria Policy Advisory Group

Geneva, Switzerland

Andrea Bosman & Pascal Ringwald

Directors a.i.

11 October 2022

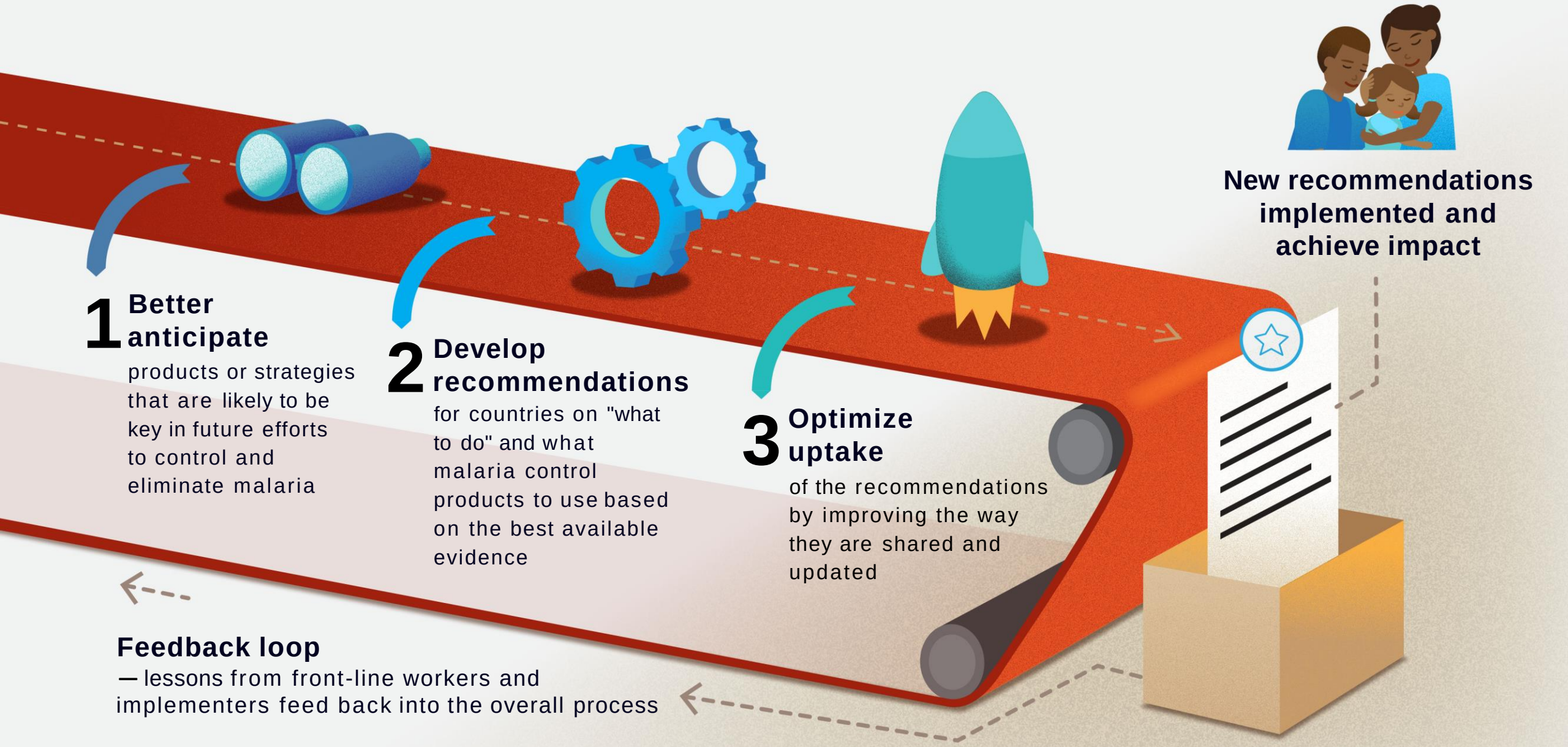
Global **Malaria** Programme

World Health Organization

Progress since MPAG meeting of 21-23 March 2022

- Normative guidance
- Meetings and publications
- Technical updates
- Country support

WHO GMP normative work: 3 steps in the pathway



New recommendations implemented and achieve impact

1 Better anticipate

products or strategies that are likely to be key in future efforts to control and eliminate malaria

2 Develop recommendations

for countries on "what to do" and what malaria control products to use based on the best available evidence

3 Optimize uptake

of the recommendations by improving the way they are shared and updated

Feedback loop

— lessons from front-line workers and implementers feed back into the overall process

Better Anticipate

Preferred Product Characteristics (PPCs) published:

- Endectocide & ectocide products for malaria transmission control (June)
- Indoor residual surface treatments for malaria transmission control in areas with insecticide-resistant mosquito populations (June)
- Malaria vaccines: preferred product characteristics and clinical development considerations (Sept)

Preferred Product Characteristics (PPCs) in development:

- Tests for G6PD activity – screening/triage and one-time quantitative test
- Monoclonal antibodies and medicines for chemoprevention
- Tests for *P. vivax* recent infection (lab based and point-of-care)
- Outdoor malaria vector control

WHO Coordinated Scientific Advice

- Arterolane-piperaquine
- Artemether-lumefantrine-amodiaquine
- Ganaplacide-lumefantrine (solid dispersion formulation)

Develop recommendations: two Guideline versions released

- **31 March 2022 – revisions to the vector control recommendations**
  - Conditional recommendation for the deployment of pyrethroid-PBO nets
  - Recommendation for the deployment of pyrethroid-only LLINs or pyrethroid-PBO nets and a conditional recommendation for the deployment of IRS in areas affected by humanitarian emergencies
  - Information on insecticide selection for IRS updated with further detail about the risks of using DDT
  - Details on resource considerations, cost and cost-effectiveness for recommendations added to inform local costing and the selection of intervention packages
- **3 June 2022 – new and revised recommendations on chemoprevention and elimination**
  - Updates to recommendations for IPTp, perennial malaria chemoprevention (PMC, formerly known as IPTi) and seasonal malaria chemoprevention (SMC)
  - New recommendations on intermittent preventive treatment in school-aged children (IPTsc), post-discharge malaria chemoprevention (PDMC), mass drug administration (MDA) for malaria burden and transmission reduction, and mass relapse prevention
  - Recommendations based on full evidence reviews of mass testing and treatment, targeted testing and treatment, targeted testing and treatment at points of entry, reactive drug administration, reactive case detection and treatment, and reactive indoor residual spraying

New WHO recommendations on chemoprevention

Technical area	Strength & evidence	For/against	Recommendation	New/update
Chemoprevention	Conditional, moderate certainty	For	Perennial malaria chemoprevention (formerly IPTi)	Updated
Chemoprevention	Strong, moderate certainty	For	Seasonal malaria chemoprevention	Updated
Chemoprevention	Strong, moderate certainty	For	Intermittent preventive treatment of malaria in pregnancy	Updated
Chemoprevention	Conditional, low-certainty	For	Intermittent preventive treatment of malaria in school children	New
Chemoprevention	Conditional, very low-certainty	For	Post-discharge malaria chemoprevention	New

Strong recommendation for

Conditional recommendation for

New recommendations on mass drug administration

Technical area	Strength & evidence	For/against	Recommendation	New/update
MDA	Conditional, low-certainty	For	MDA in moderate-high transmission for short-term *P. falciparum* burden reduction	New
MDA	Conditional, low-certainty	For	MDA in emergency settings for short-term *P. falciparum* burden reduction	New
MDA	Conditional, low-certainty	For	MDA to reduce *P. falciparum* transmission in very low to low transmission	New
MDA	Conditional, very low-certainty	Against	MDA to reduce *P. falciparum* transmission in moderate to high transmission	New
MDA	Conditional, very low-certainty	For	MDA with antimalarial medicine to reduce *P. vivax* transmission	New
MDA	Conditional, very low-certainty	Against	MDA with 8-aminoquinoline alone to reduce *P. vivax* transmission	New

Conditional recommendation for

Conditional recommendation against

Upcoming release of new guidelines recommendations – I

Technical area	Strength & evidence	For/against	Recommendation	New/update
Elimination	Conditional, very low-certainty	For	Targeted drug administration to reduce transmission in low/very low transmission	New
Elimination	Conditional, moderate certainty	Against	Mass testing and treatment to reduce malaria transmission	New
Elimination	Conditional, very low-certainty	Against	Testing and treatment of people at increased risk to reduce transmission	New
Elimination	Conditional, low-certainty	For	Reactive drug administration to people near malaria cases to reduce transmission	New
Elimination	Conditional, very low-certainty	For	Testing and treatment of people near malaria cases to reduce transmission	New
Elimination	Conditional, very low-certainty	For	Reactive indoor residual spraying near malaria cases to reduce transmission	New
Elimination	Conditional, very low-certainty	Against	Routine test and treatment of people at points of entry to reduce importation	New
Elimination	Conditional, very low-certainty	For	Testing and treatment of groups from endemic areas to reduce importation	New

Next steps following the WHO recommendation for use of the first malaria vaccine, RTS,S/AS01

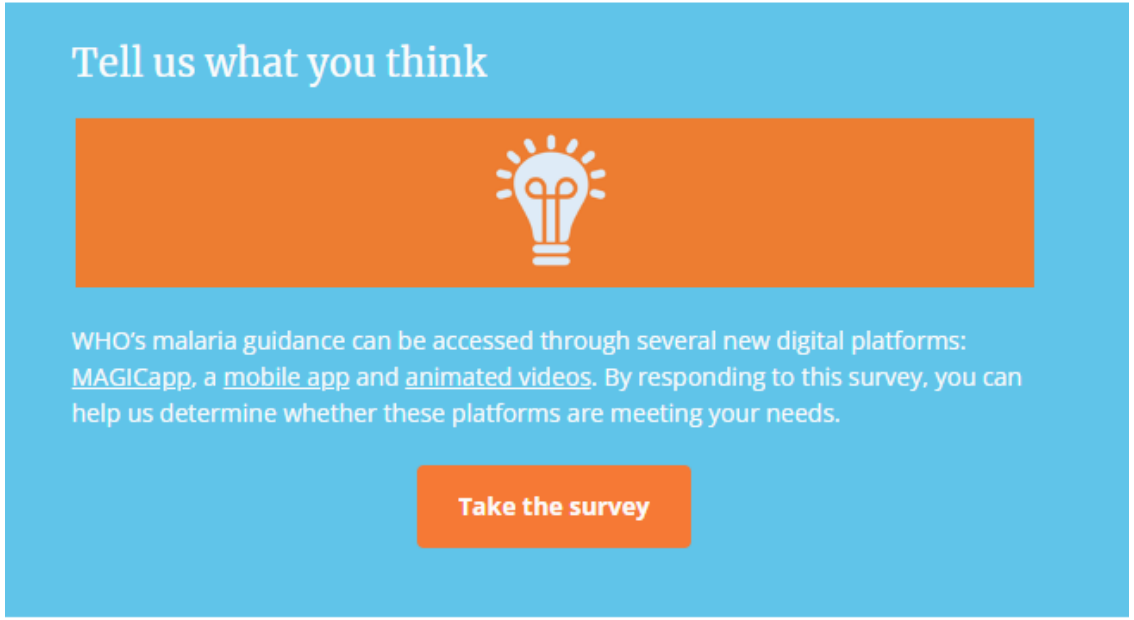
*

- **Preparation and support for roll-out beyond the pilots**
  - At least 24 countries have already expressed interest to introduce the malaria vaccine
  - Gap between vaccine supply and demand means countries will have to consider a phased approach, beginning in areas of greatest need
  - Countries are identifying areas of greatest need based on best available local evidence

- **Planning underway for WHO review of next malaria vaccines**
  - Second vaccine could help to increase supply, reduce cost
  - R21/MatrixM is most advanced late-stage candidate and Phase 2 data in seasonal use indicate vaccine efficacy may be similar to that of RTS,S/AS01 in seasonal use
    - Timing of R21/MatrixM review dependent on Phase 3 trial data availability

Optimize uptake

- The Malaria Dissemination Taskforce has met twice and is planning to meet again on 18 October.
- With representation from all regions and many partner organizations, we welcome their input on how to optimize dissemination and uptake
- Survey released on dissemination via MAGICapp, Malaria Toolkit, Animated videos

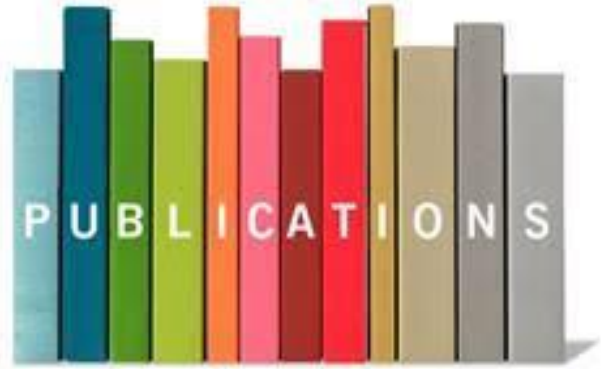


WHO Technical Meetings since April 2022

- WHO Informal Malaria Dissemination Taskforce (17 May & upcoming soon - 18 October)
- WHO Technical Consultation to assess evidence on community-based delivery of IPTp (21-23 June)
- WHO External Competence Assessment of Facilitators on Malaria Microscopy (27 June – 1 July)
- Pilot decision workshop to aid prioritization of resources for malaria vector control in Ghana (12-13 September)
- Technical Advisory Group on Malaria Elimination and Certification (13-14 September)
- WHO Technical consultation to review the effectiveness of rectal artesunate for pre-referral treatment of severe malaria in children (20-21 September & 18-19 October - upcoming)
- 17th Vector Control Advisory Group meeting (3-6 October)

WHO publications since April 2022

- WHO Guidelines for malaria (3 June)
- Manual for monitoring insecticide resistance in mosquito vectors and selecting appropriate interventions (22 June)
- Malaria chemoprevention efficacy study protocol (28 Jul)
- Malaria surveillance assessment toolkit (2 Aug)
- Technical consultation on the malaria rebound phenomenon – meeting report (18 Aug)
- WHO initiative to stop the spread of *Anopheles stephensi* in Africa (29 Sept)



Technical updates

Vector Control

Drugs & Diagnostics

Drug Efficacy

Surveillance

Vector Control

2022 notable achievements

- **DHIS 2**
  - Modules been further improved, and translations of some modules completed
  - Madagascar, Ghana, Kenya, Tanzania, Burkina Faso, Botswana and Angola been provided with remote support
- **Insecticide resistance monitoring**
  - SOPs, test procedures and high-level video finalized and published.
  - Detailed video on procedures under development
- **Prioritization exercises**
  - Workshop in Ghana held early Sept to investigate the utility of MINT and STAR in the vector control decision-making process

Anopheles stephensi

Initiative launched on 29th September

- Virtual launch – brochure and stories on WHO website
- Call to introduce initiative – October 10

Partnership convening – March 2023 (Ethiopia)

- Building a coordinated response across Africa
- Improving information exchange & evidence-base -> guidance

Malaria Threats Map

- Nigeria collections move the invasion out of the Horn of Africa
- Improving maps with “negative points” to assist in interpretation and modelling

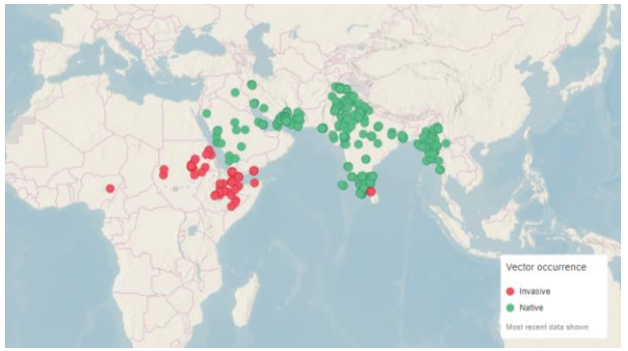


Fig. 3. Survey results showing only positive larval sites (blue stars).

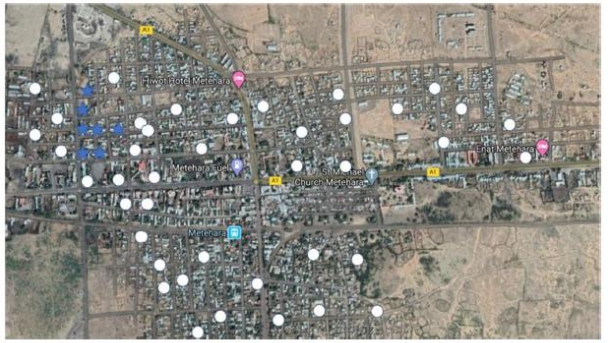


Fig. 4. Survey results showing positive larval sites (blue stars) and negative larval sites (white circles).

Drugs & Diagnostics

2022 notable achievements

- Dissemination at NMCP meetings (4 CRSPC in Africa, SEARO inter-country workshop)
- Pfhrp2/3 surveillance implemented in priority countries and results published
- Publication soon of Quality and safety practices for malaria rapid testing services

Priorities for the last quarter

- Full release new WHO recommendations on malaria treatment
- Updates: SMC field manual, severe malaria handbook, MDA manual
- New field manual for community IPTp
- Update pfhrp2/3 deletion surveillance protocols and WHO response plan for pfhrp2/3 deletions

Updating the classification of G6PD genetic variants

Yoshida et al.'s proposed classification of G6PD, 1971

I. Activity <10% of normal, severe enzyme deficiency with chronic non-spherocytic haemolytic anaemia (CNSHA)

II. Activity <10% of normal, severe enzyme deficiency

III. Activity 10–60% of normal, moderate to mild enzyme deficiency, intermittent acute haemolysis

IV. Very mild or no enzyme deficiency (60–100% of normal)

V. Increased enzyme activity (more than twice normal)

Landscape has changed over 50 years

- *G6PD DNA sequence published – variants understood based on mutations*
- *Overlapping clinical manifestation of Class II and III*
- *Single reports of variants in Class V*
- *Reports of CNSHA with activity > 10%*

New classification to be published in WHO Bulletin 2023

WHO classification of G6PD variants in homozygous and hemizygous deficient individuals

G6PD Variant Class	Median of G6PD activity (% of normal)	Associated clinical manifestations
A	<20%[a]	Chronic hemolytic anemia
B	<45%	Neonatal jaundice; acute hemolytic anemia triggered by certain medicines, foods (fava beans) and infections
C	>60%	None reported
U[b]	Any	Uncertain clinical significance

New classification proposed:

- Based on extensive review of literature of most common variants
  - *Pfeffer, D.A et al. Genetic Variants of Glucose-6-Phosphate Dehydrogenase and Their Associated Enzyme Activity: A Systematic Review and Meta-Analysis. Pathogens **2022**, 11, 1045.*
  - *Nannelli et al. Biochemical Genetics of G6PD variants. In preparation*
- The new WHO G6PD classification will inform product requirements (TPPs) and performance requirements (Guidelines).

a - A variant with < 20% activity will be in class A only if it is associated with chronic haemolytic anemia
b- *a temporary assignment for variants for which there is currently insufficient information regarding clinical manifestations*

Drug Efficacy

2022 notable achievements

- Supported therapeutic efficacy studies in Africa and in the Greater Mekong subregion
- Support provided to implement PCR recommendations from 2021 meeting
- Support given to molecular marker surveillance
- Development of the *Strategy to respond to antimalarial drug resistance in Africa* endorsed by an ad hoc MPAG meeting in August 2022

Priorities for the last quarter

- Two antimalarial efficacy and resistance network meetings planned: GMS network (Bangkok, November) and Hanmat (December, Cairo)
- Focus on launch and implementation of *Strategy to respond to antimalarial drug resistance in Africa*

Why a strategy for antimalarial drug resistance in Africa is needed

Context

- **Artemisinin-based combination therapies** (ACTs) as main medicine to fight malaria.
- WHO recommends 6 ACTs, yet there is **heavy reliance on artemether-lumefantrine** (85% of courses procured by GF).
- ACT treatment failures due to artemisinin partial resistance and partner drug resistance appeared in **GMS.**
- High number of cases (>90% of global malaria cases) and reliance on few treatments put Africa particularly at risk **if resistance emerges and spreads.**

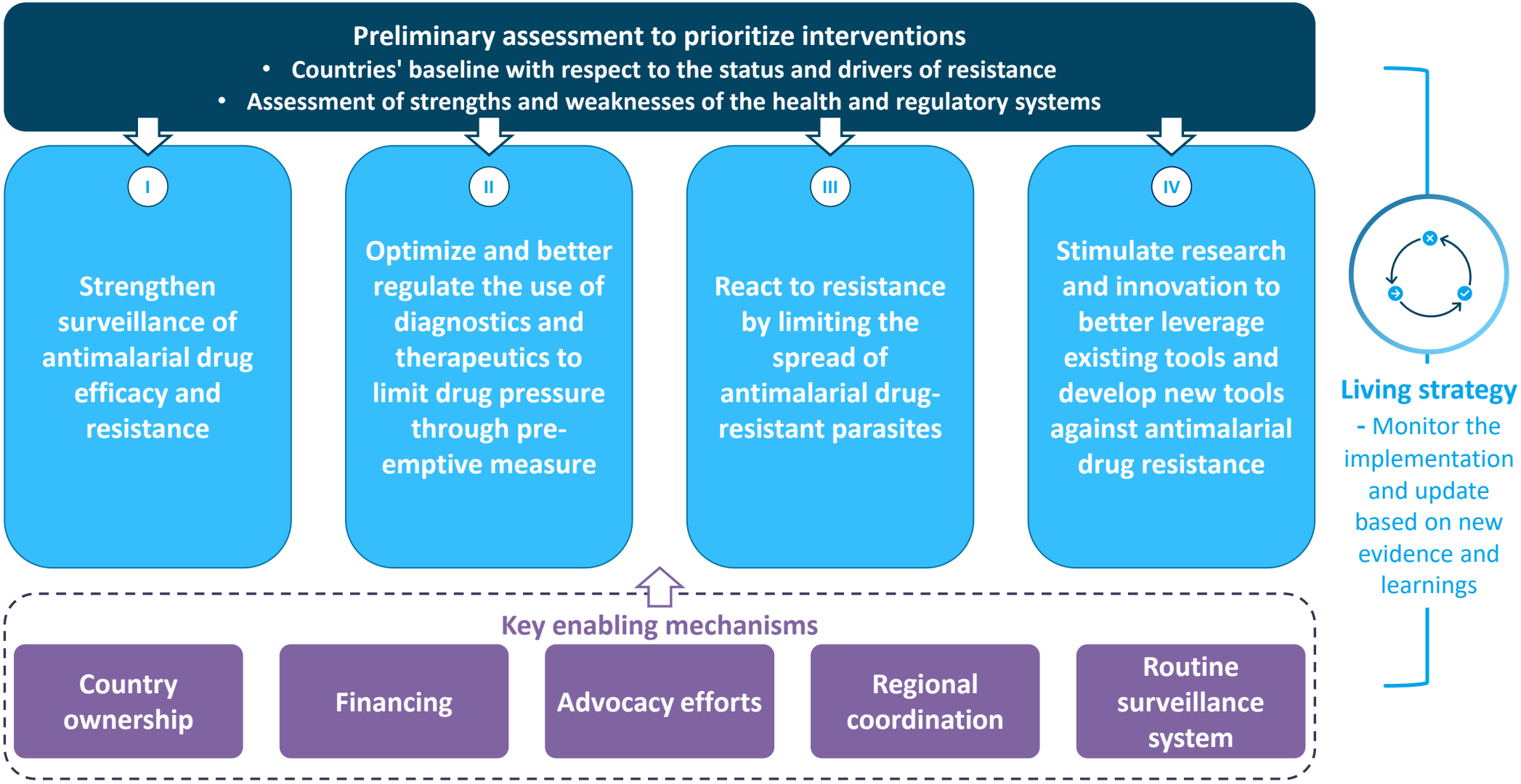
Problem statement

- **Artemisinin partial resistance** confirmed in Uganda, Rwanda and Horn of Africa.
- Artemisinin partial resistance **puts pressure on partner drug** and might trigger de novo emergence of resistance or selection of existing partner drug resistance.

Way forward

- **Need to define a strategy to respond to antimalarial drug resistance in Africa, and**
  1. **Prevent the emergence of resistance**
  2. **Tackle resistance once it has emerged**
- **Strategy will rely on a better use of existing tools & development of new tools & strategies, with actions at global, regional and local level**

Four proposed areas of interventions to be prioritised and targeted through country assessment



20 interventions clustered in 4 pillars to address resistance

I Strengthen surveillance of antimalarial drug efficacy and resistance

1. Enhance capacity and capabilities to generate better quality and standardized data on antimalarial drug efficacy and parasite resistance
2. Increase coverage of surveillance systems for efficacy and resistance
3. Increase collection of additional, more detailed data at select sites
4. Improve data dissemination systems to facilitate a reactive and coordinated response to resistance data

II Optimize and better regulate the use of diagnostics and therapeutics to limit drug pressure through pre-emptive measures

1. Develop national treatment policies that promote deliberate use of existing treatments to prevent and react to the emergence and spread of resistance
2. Promote the availability of a diversified drug portfolio in countries
3. Prevent exposure to subtherapeutic drug levels driven by substandard and falsified ACTs by promoting drug quality
4. Remove non-recommended monotherapies and ensure that other monotherapies are used in accordance with WHO guidelines
5. Promote equitable access to quality drugs
6. Promote equitable distribution of and access to high-quality diagnostics to reduce drug pressure
7. Empower patients, HCWs and other stakeholders to make informed decisions, and provide appropriate treatment

III React to resistance by limiting the spread of antimalarial drug-resistant parasites

1. Ensure optimal malaria vector control intervention coverage in priority areas
2. Leverage preventive measures to reduce transmission of antimalarial drug-resistant parasites
3. Limit the risk of increased transmission of resistant parasites
4. Strengthen cross-border collaboration on malaria activities to ensure coordinated resistance management

IV Stimulate research and innovation to better leverage existing tools and develop new tools against resistance

1. Identify innovative approaches using currently available drugs to delay the development and spread of resistance
2. Identify areas and populations where drug resistance is deemed more likely to develop and spread
3. Develop new treatments and diagnostics with the objective of delaying the emergence and spread of resistance
4. Identify and develop innovative tools to limit malaria infection and transmission
5. Conduct modelling and research to better understand and track resistance

Strategic Information for Response

2022 notable achievements

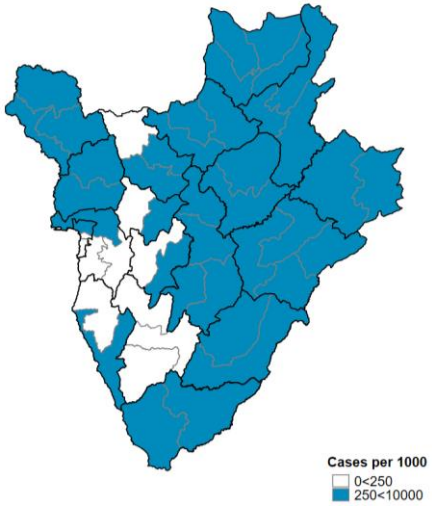
- Updates to the DHIS2 aggregate toolkit and finalization of documents for DSME, and training materials: launch planned in next few weeks
- Working with MAP on joint use of routine data and *Pf*PR for risk mapping for HBHI stratification. Nigeria and Mozambique completed, next Cameroon, Uganda and Burkina Faso
- Strategic Information Technical Advisory Group: selection completed, planned Q1 2023
- Support to AFRO to establish and launch the Precision Public Health unit in UCN
- Finalization of response framework for malaria in urban areas: joint launch with WHO Urban Health and UN HABITAT on 31 October

Framework for the allocation of limited malaria vaccine supply

First priority principle of the framework: Greatest need
Allocate the vaccine to countries with areas of greatest need, where the malaria disease burden in children and the risk of death are highest

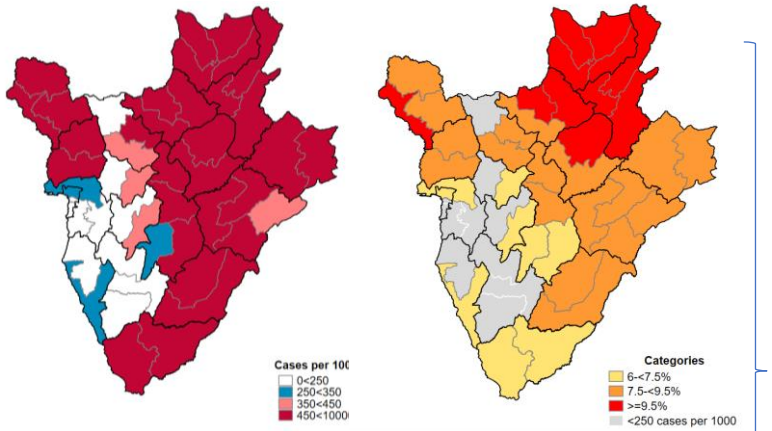
Other principles: Maximize health impact and solidarity

Step 1: Identification of areas of moderate and high transmission where the vaccine is recommended

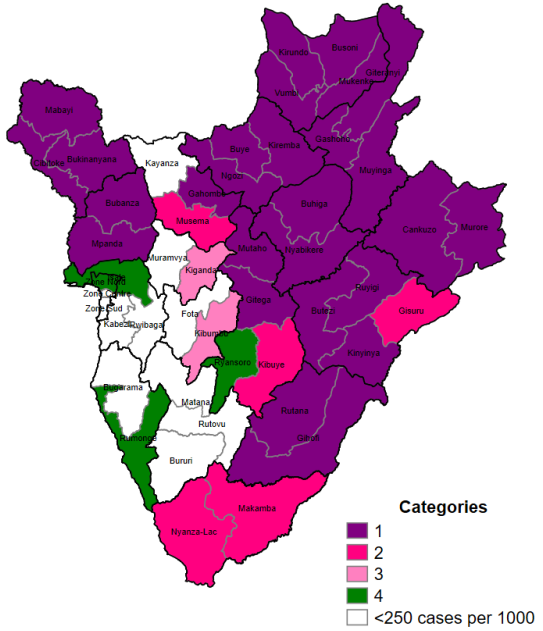


Areas with **>250 cases per 1000** (blue) identified as having moderate or high transmission intensity

Step 2: Prioritization of areas of moderate-to-high transmission into **categories of need** for the vaccine according to malaria transmission and mortality.



	Incidence (cases per 1000)	AU5MR (%)
1	350-<450	>9.5%
1	>=450	>9.5%
1	>=450	7.5%-<9.5%
2	250-350	>9.5%
2	350-450	7.5%-<9.5%
2	>=450	6.5%-7.5%
3	250-<350	7.5%-<9.5%
3	350-<450	6.5%-7.5%
3	>=450	<=6.5%
4	250-<350	6.5%-7.5%
4	350-<450	<=6.5%
5	250-<350	<=6.5%



Category 1 areas (highest need) targeted for the **first phase** of vaccine introduction

Step 3: Review categorization guided by additional local data to ensure operational feasibility and coverage of districts within the maximum number of doses available per country as per the solidarity principle

World Malaria Report

2022 achievements

The WMR 2022 will have some the following highlights

- **ITN** - retention, durability (physical & chemical), resistance and effectiveness
- **Research and innovation** – product pipelines (prevention, diagnosis and treatment)
- **Strategy for antimalarial drug resistance in Africa** – launch and key content
- **Surveillance assessments** – tools and country case studies
- **Vaccine roll out** – country applications and timelines; UNICEF announcement on vaccine supplies
- **Effects of COVID- 19** – expanded section of effects of disruptions
- **Nigeria supplement** – a separate brief document on state level progress as requested by NME

Launch planned for 8 December

Country support

High burden to high impact

Elimination

High burden to high impact (HBI & SIR)

2022 progress

- Sudan adopted HBHI, working with NMCP & EMRO for high-level launch
- Assessment of HBHI approach done in 6 countries with support from RBM CRSPC
- 1,7mRCT - Malaria Reactive Community Case Testing and Response project on-going in Burkina Faso, Senegal, Tanzania and Zambia
- Malaria in humanitarian emergencies, support to Tigray/Ethiopia & Pakistan
- MPR – done in India and Mozambique (as well as in Madagascar and Indonesia)
- Updated competency framework for NMCP, based on NMCP meeting in SEARO
- Finalization of Phase 1 data repositories in Burkina Faso and Uganda
- Data deep-dive workshop in Nigeria, feeding into Nigeria WMR supplement
- EPI review data analysis in several countries (Yemen, Togo, Burkina Faso, Cameroon)

High burden to high impact (HBI & SIR updates)

Priorities for the last quarter

- Complete the assessment of HBHI approach in collaboration with RBM CRSPC
- Promote HBHI approach to other countries
- Joint mission with EMRO to prepare the launch of HBHI approach in Sudan
- Technical support - MPR, stratification, updating of NSP, 1,7mRCT project, malaria in complex emergencies, and support national data repositories and BMGF modeling investments in the Africa Region.
- Workshop on multi-sectoral response to malaria in Burkina Faso (lead by TDR as part of the 1,7 mRCT project)
- Further refine the competency framework and the capacity building strategy for national malaria control and elimination programs
- Finalize hybrid training modules on planning and management of malaria programs for piloting in Q1 2023

Elimination

2022 achievements

- Malaria elimination course on OpenWHO platform is published (adding audio/video)
- MECP and MEOC were discontinued, and new functions assumed by Technical Advisory Group on Malaria Elimination and Certification (TAG-MEC) - first meeting on 13-14 Sep.
- STOP malaria consultants continue supporting Botswana, Ecuador, Eswatini, Sao Tome and Principe and Vanuatu
- Implementation of E-2025 is accelerated
- Trainings organized in AFRO and AMRO to strengthen capacities of malaria microscopy, case management, subnational verification, foci management, surveillance.

Elimination

Priorities for the last quarter

- 4th Global Forum of malaria-eliminating countries (Cape Town, South Africa) planned for 24-26 January 2023
- Certification missions of Azerbaijan and Tajikistan are ongoing
- Development of case studies describing certification of malaria elimination in Kyrgyzstan and Uzbekistan
- Capacity building in AFRO and EMRO on malaria elimination, subnational verification and malaria microscopy
- Continue supporting Cabo Verde to prepare for certification of malaria elimination
- Initiating development of the new guidance on prevention of re-establishment of malaria transmission

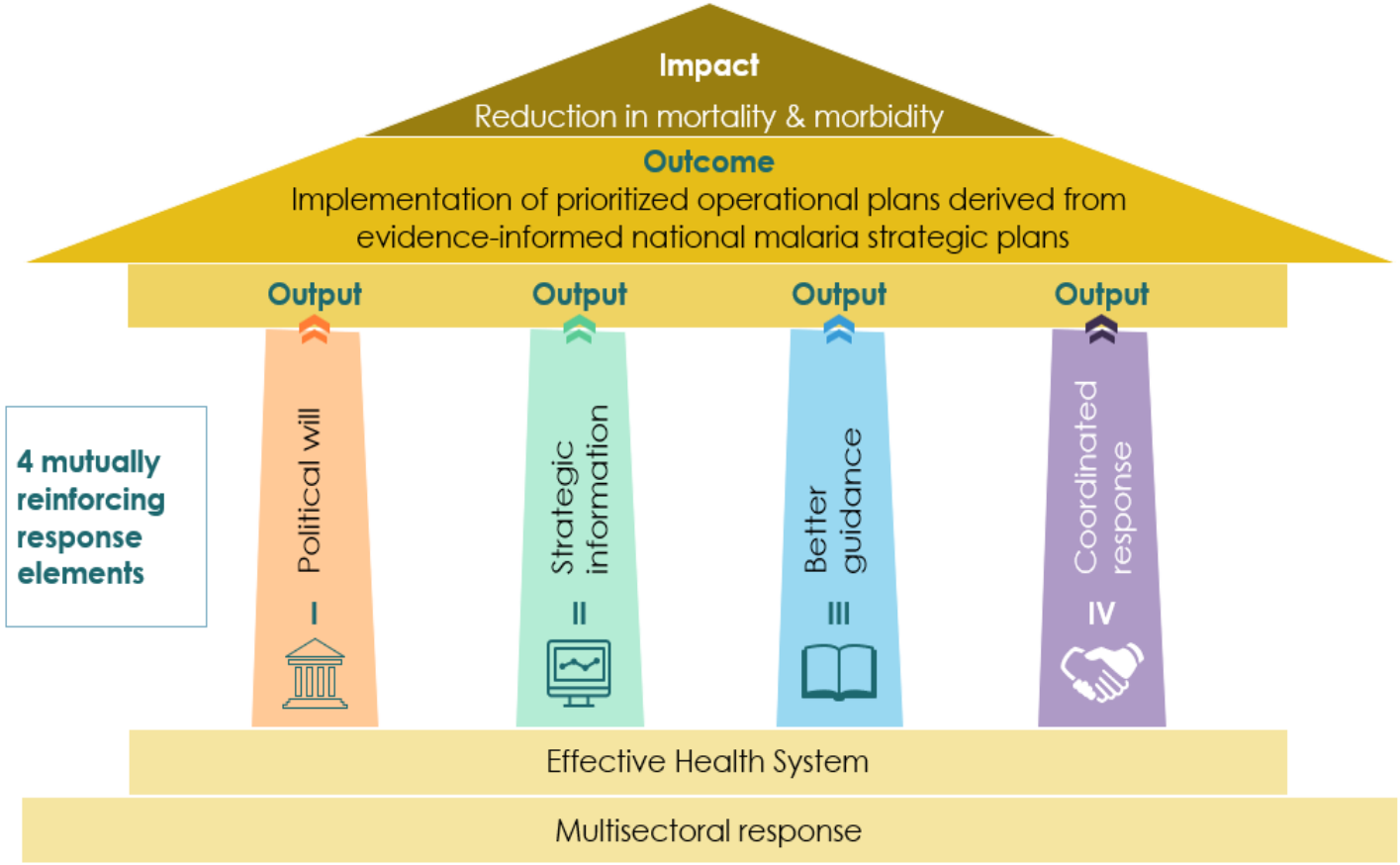
Updates on the High Burden High Impact (HBHI) approach

Dr Maru Aregawi Weldedawit

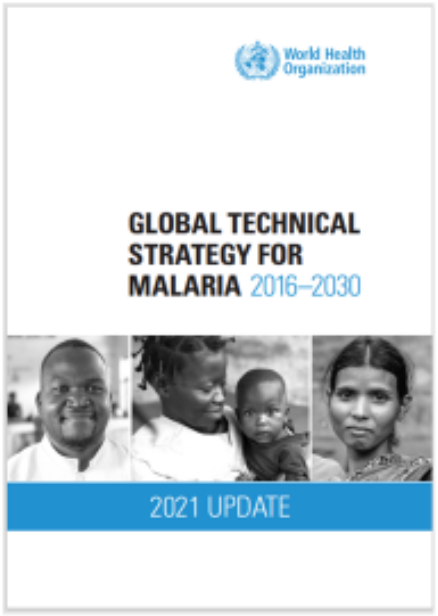
11 October 2022
MPAG

Outline

1. Context
2. Progress
3. Challenges
4. Ways forward



Context: GTS targets



Endorsed by 74th WHA in 2021

Global **Malaria** Programme

WHA74.9

1. RECOMMITS to the goal of malaria eradication and affirms that this goal will be incorporated into the post-2030 iteration of the global technical strategy for malaria

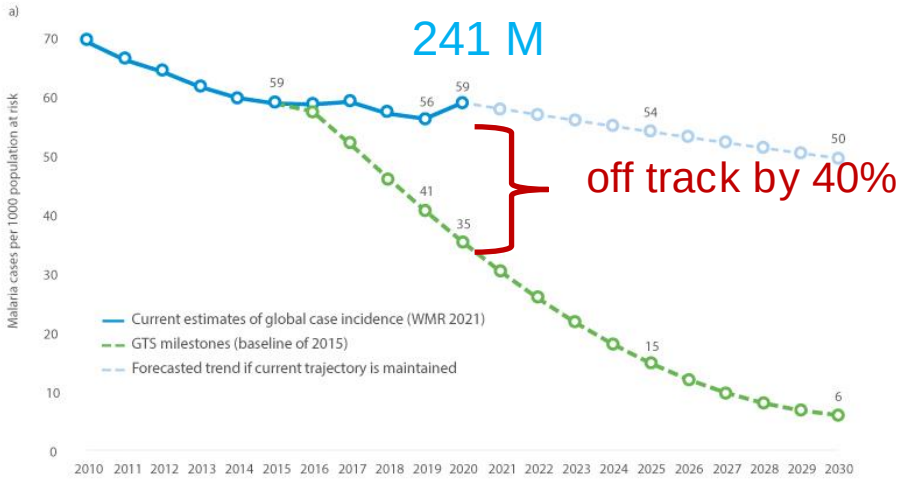
World Health Organization

Number of endemic countries **93➔ 85**

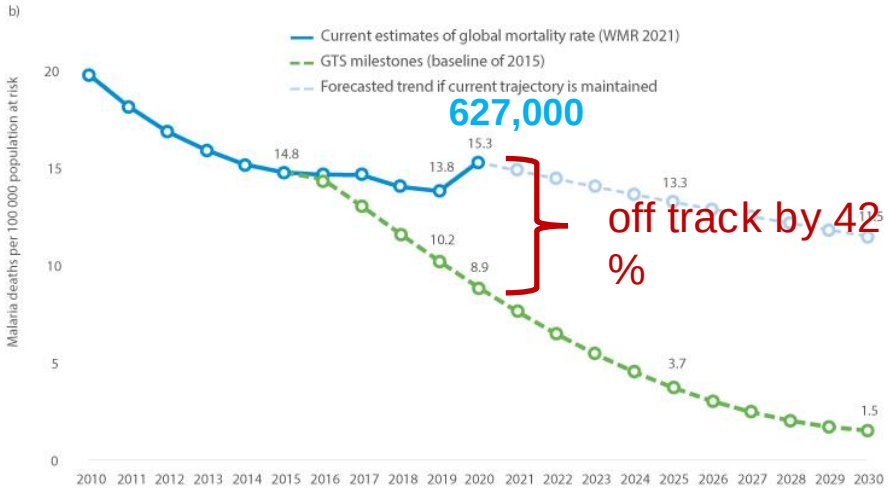
(WMR, 2021)

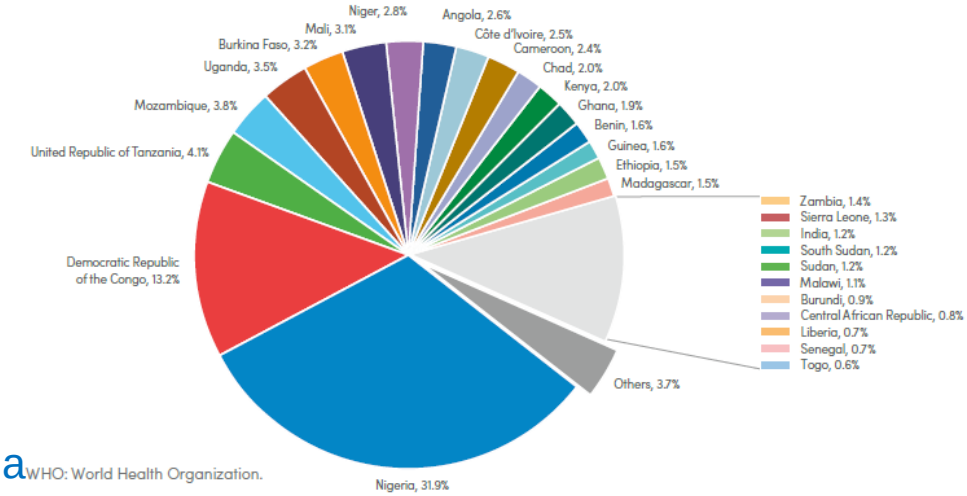
Context: HBHI countries the main challenge attaining to GSTS Targets

A) Cases



B) Deaths





- Countries of the WHO African Region accounted for >**95%** of cases and deaths
- 10 HBHI countries: 71% of global mortality
- Four countries: 53% (Nigeria, RDC, Tanzania and Mozambique)

WHO: World Health Organization.

(WMR, 2021)

Pillar I: Political will

Objective:

- To galvanize ownership and leadership by national political authorities for Empowered Structure, Accountability, Translation of political will to domestic resources and multisectoral engagement, increased awareness & community participation.

Progress:

- All 10 countries launched HBHI in high-level national events during 2018-2019.
- National Strategic Plans shaped by HBHI approach
- HBHI countries: now see political will as a critical element for country ownership
- Continued malaria service delivery despite the COVID-19 pandemic
- "Zero Malaria Starts With Me", "End Malaria Councils", Parliamentary Council for Malaria via RBM

Challenges:

- **Mindset:** Malaria, **"the abnormal"** accepted as **"normal"** ➔ No urgency
- **HBHI momentum** slowed down by the COVID-19 Pandemic (travel restrictions; shift of priorities to COVID-19 response)
- **Minimal translation of political will** to strong leadership and domestic financing
- Malaria not tackled by "**whole society**"

Pillar 2. Strategic use of information for action

Objective: Empower National Malaria Programmes (NMCPs) on the use of local data on epidemiological, health systems, climate and other social determinants for tailored deployment of interventions for maximum impact

Progress:

- Malaria Repository Database (MDRB) set-up in all countries:
- Stratification and micro-stratification shaping NSPs, MTRs, MPRs and tailoring of interventions.

Challenges:

- Inadequate capacity at national and subnational level
- Culture of data analysis and use for local and tailored action

Pillar 3. Better guidance

Objective: Ensure appropriate adoption and deployment of malaria interventions

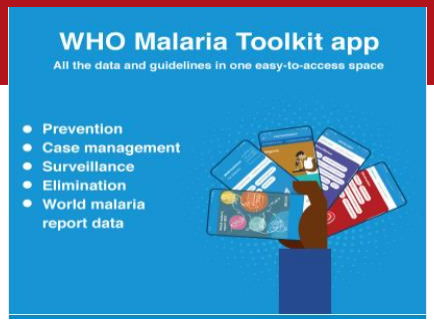
- follow implementation of interventions in adherence to WHO-recommendations and National policies at all levels

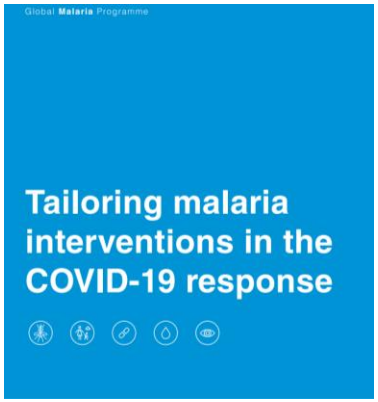
Progress:

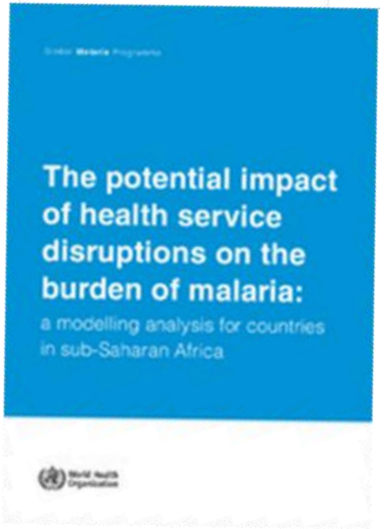
- Dissemination and use of technical guidance (global using Magicapp, Malaria Toolkit, others)
- **Support countries in** guiding NSPs, MTRs, and **MPRs and implementation of GF grants**

Challenges

- *Subnational: Poor access* to national guidelines (Internet access, physical copies)
- Mixed reaction by programmes to newer interventions or tools
- *Inadequate platforms to disseminate latest guidelines*
    - *Fewer technical briefing of Programme managers and partners on latest WHO guidance*







Pillar 4. Coordination and partnership

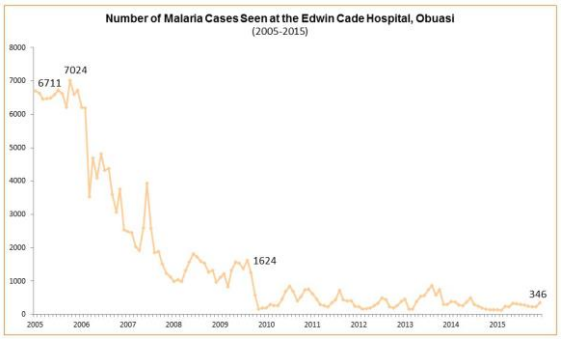
Objective: Ensure that NMCP provides effective **leadership** and **coordination**

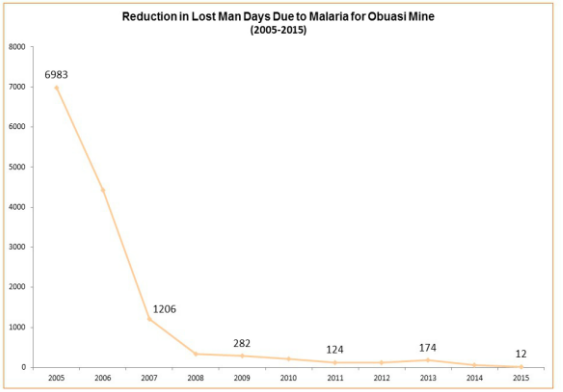
Progress:

- Existing structures/mechanisms revitalized and strengthened
- Coordination tailored to COVID-19 response
- Ensured continuity of services in context of COVI-19 despite some disruption at early stage of the pandemic
- Countries supported to access additional resources (GF COVID-19)
- **AngloGold Ashanti (AGA MAL)**: good lesson for multisectoral collaboration

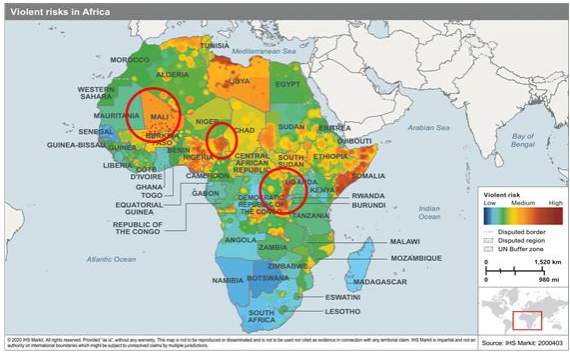
Challenges

- Inadequate collaboration at subnational level
- Little progress in engagement of the prive sector
- Fewer partners (little investment from WB, UNDP, Bilaterals..)
- Fewer examples of **multisectoral approaches** applied in malaria control in the HBHI countries (Mining, Agri, Edu, Tourism, Other developmental activities)
- **Conflicts:**
  - 8 of the 10 HBHI countries
  - 122 M people in 21 endemic countries





Overview over Areas of Armed Conflict in Africa 2021



Ways forward

1. Political will and Country ownership

- Political will at all levels driven by realistic vision
  - Through strategic Communication and Advocacy
- Tackle malaria as “whole society” through multisectoral approach
  - Lessons of COVID-19 pandemic and response
  - Lessons from malaria eliminating countries

2. Strategic use of information

- Investment and technical support to NMCPs, national institutions for capacity building on data analysis and use for action
- Lesser dependency on external support

3. Better guidance

- Systematic and regular dissemination of WHO guidelines through platforms (WHO and RBM meetings followed by webinars and other electronic)
- Review on deployment of new products and feedback
- Better placement of malaria in complex emergencies as part of the humanitarian responses
- Support national institutions

4. Coordination

- Better integration of malaria in the people-centered health services and multisectoral approach

Ways forward

5. Health systems

- Better integration of malaria in the people-centered health services
- Ensure equity, gender equality and human rights into health programmes
- Investment in integrated capacity strengthening and service delivery

6. Multisectoral approach

- Country leadership to bring coordination and accountability
  - joint planning, financing, implementation and evaluation
- Address malaria as a socio-economic development agenda
- Country-specific framework for multi-sectoral response to malaria to guide MOH and key partners in engaging other sectors
- Integrate all SDGs relevant to malaria

7. Partnership

- **Renewed commitment** and movement:
  - **E.g. High Level Forum for Africa**

8. Finalization of the ongoing HBHI evaluation

- 6 Countries by RBM
- 4 Countries by WHO

4 Evaluation Questions (EQ) to address the Objectives

EQ1	**Global Implementation Processes:** To what extent has the process of global HBHI implementation facilitated improved malaria programme engagement with partners?
EQ2	**Impact on Country Level Performance:** To what extent has HBHI implementation led to improved performance at the country level?
EQ3	**Scaling up all 4 Elements:** How can examples of good practices and lessons learned from HBHI implementation inform the scale up of all four elements?
EQ4	**Scaling up HBHI to additional countries:** How can examples of good practices and lessons learned from HBHI implementation inform the scale up to additional countries?

Research Methods and Processes for the Evaluation

Study design

Qualitative research methods

- Desk review of HBHI documents
- HBHI Country consultations
- Questionnaire design for different interview formats
- Completed in early March

Interviews

Interview modalities

- Key Informant Interviews (KII), global and country level
- Electronic survey (English, French, and Portuguese) for partners
- In-depth interviews with malaria programme managers

Recommendations

Areas to Improve

- Global coordination
- Resources for technical assistance
- Political support
- Applying best practices in new contexts

RBM Partnership To End Malaria

World Health Organization

Ways forward

8. Expansion of the HBHI Approach (88% of burden)

- AFRO: 13 countries
- EMRO: Sudan – an opportunity to re-invigorate the weakened malaria programme due to re-organization and decentralization of health services
- WPRO: Papua New Guinea – burden similar to many high burden countries in Africa

9. Support needed by WHO

- Human resources – GMP, Regional and Country Offices
- Financial resources – country self-assessment and launch of HBHI approach; technical support; follow-up on implementation of the pillars, capacity strengthening of NMCPs; promote multisectoral approach including the private sector

S.N	Country	Estimated cases	Estimated deaths	%	Incidence / 1000	HBHI
1	Burkina Faso	8150690	19979	3%	401.0893	1st
2	Mali	7238665	19316	3%	368.2296	1st
3	Niger	7845520	17435	3%	336.5628	1st
4	Democratic R	29036471	82511	12%	334.5579	1st
5	Mozambique	10007802	23766	4%	329.5721	1st
6	Nigeria	64677959	199689	27%	321.8392	1st
7	Uganda	12982098	21699	5%	293.251	1st
8	Cameroon	6900814	14841	3%	266.6838	1st
9	Ghana	5060166	12084	2%	166.3551	1st
10	United Repul	7178459	25972	3%	123.7549	1st
11	India	4148253	7341	2%	3.248994	1st
12	Sudan	3218465	7533	1%	75.17453	2nd
13	Benin	4707522	10123	2%	398.9036	2nd
14	Liberia	1810880	4601	1%	366.7699	2nd
15	Central Africa	1622774	5079	1%	341.9837	2nd
16	Sierra Leone	2617968	8054	1%	335.0696	2nd
17	Guinea	4196430	10215	2%	328.5842	2nd
18	Burundi	3506219	5822	1%	304.0801	2nd
19	Cote d'Ivoire	7571801	15913	3%	294.433	2nd
20	South Sudan	3211331	7431	1%	290.2999	2nd
21	Angola	8268572	15989	3%	259.8113	2nd
22	Equatorial Gu	337892	674	0%	249.1862	2nd
23	Papua New G	1470120	2962	1%	167.5137	2nd
24	Rwanda	2986047	3046	1%	236.4823	2nd
25	Malawi	4370301	7165	2%	234.5998	2nd

Update on non-inferiority assessments in the WHO evaluation process for vector control products

Dr Jan Kolaczinski

Head, Vector Control & Insecticide Resistance Unit, Global Malaria Programme

&

Ms Marion Law

Team Lead, Prequalification Team, Vector Control Products

Malaria Policy Advisory Group (MPAG)
11 October 2022

World Health Organization

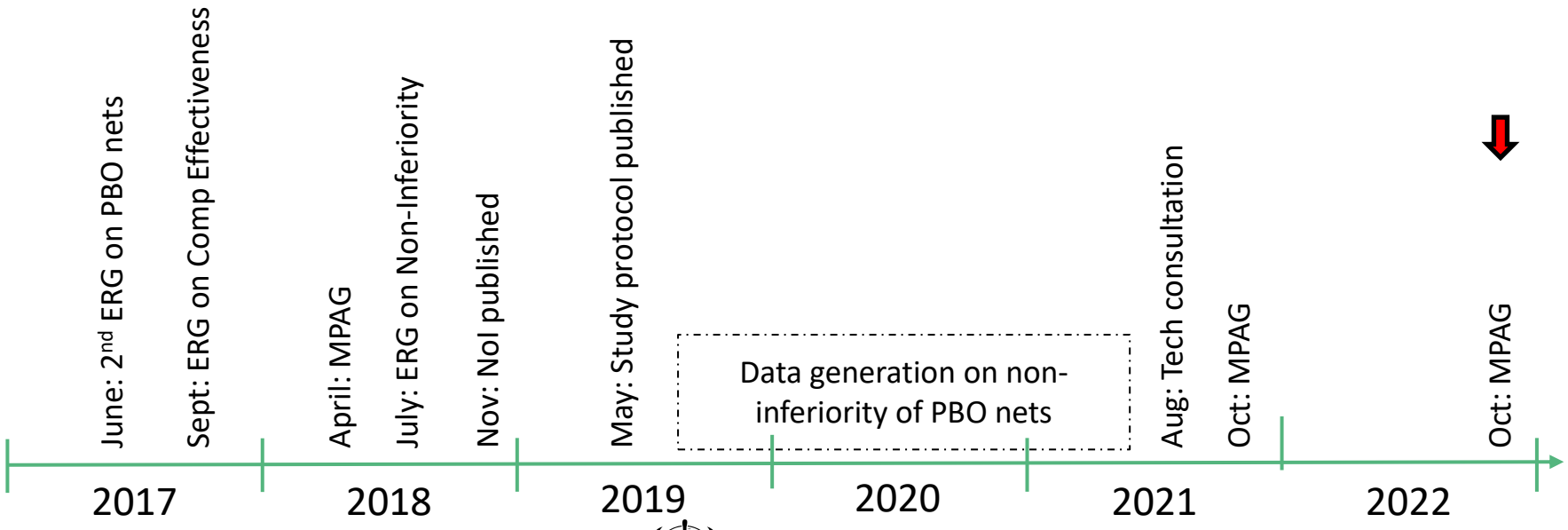
Background

- Since the discontinuation of WHOPES in 2017, the WHO vector control evaluation process and the WHO guidelines development process have significantly evolved
- Explicit demonstration of an intervention's public health value (= epidemiological impact) and formulation of a WHO recommendation for the intervention is essential and explicit
- There is a trend for vector control intervention classes to broaden, meaning that:
  - overall, fewer trials with epidemiological endpoints may be needed (≥2 / class)
  - products within a broadened class (and hence covered by a WHO recommendation) are more diverse
- In turn, the need for some form of assurance has been identified that a WHO recommendation – formulated by drawing on epi impact data from at least two trials deploying a 'first-in-class' (FIC) product – applies to a 'second-in-class' (SIC) product
- At the request of MPAG non-inferiority assessment using one or more entomological endpoints has been explored using pyrethroid-PBO nets as a case study
- In October 2021, the findings and recommendations from the 2nd technical consultation on non-inferiority were presented to MPAG and endorsed

Background

- Over the last year, WHO has held internal discussions regarding the implementation of non-inferiority evaluations as part of the WHO vector control evaluation process, including:
  - the potential value as a complement to PQT & guidelines processes
  - the communication of findings;
  - translation of such data into decisions; and
  - the respective roles of the PQT/VCP, GMP and NTD in evaluating such data

Figure: Timeline of malaria vector control non-inferiority discussions & investigations to date



World Health Organization

MPAG Update, October 2022

13:45 – 14:15	The role of comparative assessment in the WHO evaluation of vector control products using non-inferiority analysis for products of the same class	Dr Jan Kolaczinski Dr Marion Law	**For information**

To guide internal WHO discussion on implementation, it was agreed that WHO's approach of assessing non-inferiority of vector control interventions needs to remain exploratory, with a focus on insecticide-treated nets formulated with non-pyrethroid active ingredients (AIs) alone or in combination with a pyrethroid.

Internal discussions focused on:

- developing the overarching principles
- clarifying/outlining assumptions and challenges
- defining implementation arrangements

World Health Organization

Update - Principles

1. Non-inferiority determination is a comparative assessment
2. No additional studies from those needed for the PQT dossier should be required to be generated data to allow non-inferiority assessment
3. Results from non-inferiority assessment cannot be used as a label claim
4. Non-inferiority analysis outputs are meant to support decision-making processes underpinning the sourcing of vector control products by WHO Member States and procurement agencies
5. Comparative analysis is only applicable to entomological efficacy. The analysis can therefore not be used/stated in isolation as it does not provide any insight on quality or safety.

   Product "x", when compared to the FIC in the following settings, has been found to be non-inferior based on a comparison of results for [endpoint]. This finding is based solely on the analysis of the entomological efficacy data and does not consider potential differences in product quality (type, design, construction) and its safe use.

   Note: Various organizations rely on different approaches and weighting of information to inform product selection.

6. Product comparison by non-inferiority analysis does not impact decision to prequalify nor the publication or content of WHO recommendations in the WHO Guidelines for Malaria

World Health Organization

Update - Assumptions

1. Comparison of products lies within the classification of ITNs by GMP
    a. Comparative information helps to handle the diversity of products within a broadened class
    b. Provides an additional layer of information about performance within a class
2. Comparative analysis of products helps to minimize the number of RCTs (discussion was initiated in 2017 with broadening/structuring the classes of IRS and ITNs)
3. Non-inferiority results would need to be made publicly available to be of use to procurers.
4. Procurement agencies may not buy certain products without this analysis
5. The benefits of non-inferiority assessments are to:
    a. Provide a relatively easy means to determine the entomological performance of products against a comparator, avoiding issues of data comparability introduced by testing different products in different sites and at different times
    b. Provide additional information to inform procurement decisions/product selection. Comparative analysis can help increase procurer confidence thereby helping market access and diversity in marketplace

Update – Potential challenges

1. Acquiring first-in class comparator product for non-inferiority studies could prove to be difficult
2. The quality of ITNs used in comparative evaluations needs to be ascertained
3. Making non-inferiority assessment results public:
    a. Ownership of data may affect ease of publication by WHO. Manufacturer owned *vs* generated by independent study
    b. Summary findings or raw data
    c. Appropriate WHO communication channel. Technical departments *vs* PQT site
4. Capacity within WHO to run additional assessments is limited

Update - Implementation

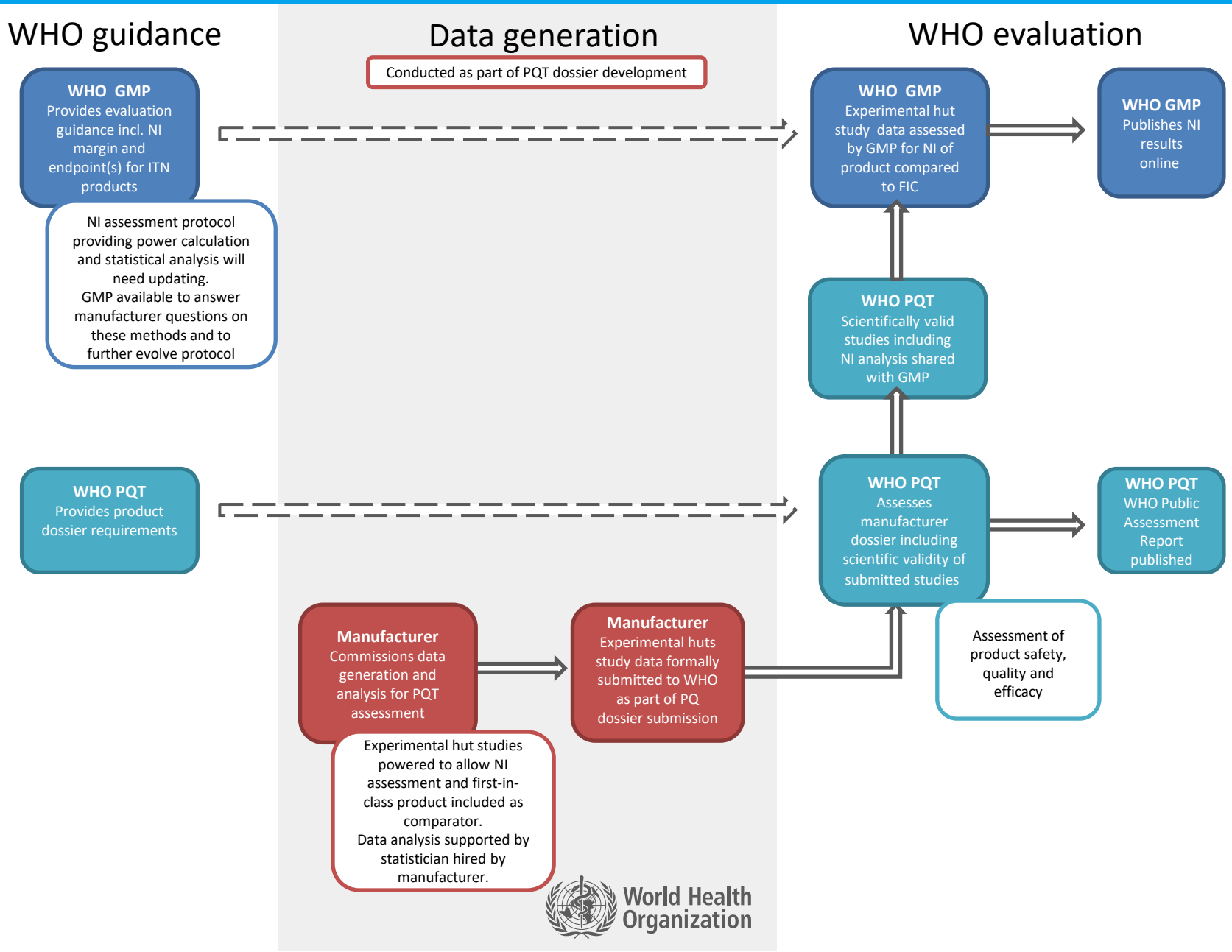
1. PQT is responsible for determining the validity of studies submitted in the PQ dossier. Studies found to be invalid will not be used for decision making.

2. Currently, non-inferiority analysis is not required for pyrethroid-only ITNs

3. VCAG is not involved in comparative entomological studies nor non-inferiority assessments of the data

4. To overcome potential challenges associated with data generation by manufacturers, the possibility of independently undertaking a mass comparison of products on the market every few years may be worth considering, as was done for pyrethroid-PBO nets

Non-Inferiority Process for ITNs - Overview



Next Steps

1. Planned 1 day consultation with procurement partners and manufacturers at annual PQT meeting in Copenhagen, 28-30 November 2022

2. Update to non-inferiority study protocol based on inputs received during technical consultation in 2021 and other inputs

3. 2023: Potentially hold a technical consultation to review entomological (and epidemiological) data on dual AI nets in the context of the current protocol for generating data for non-inferiority assessment. The key question to answer is whether endpoint(s) and methods used for pyrethroid-PBO nets fully meet the needs for a non-inferiority assessment of dual AI nets

WHO Guidelines for malaria

Malaria Policy Advisory Group meeting

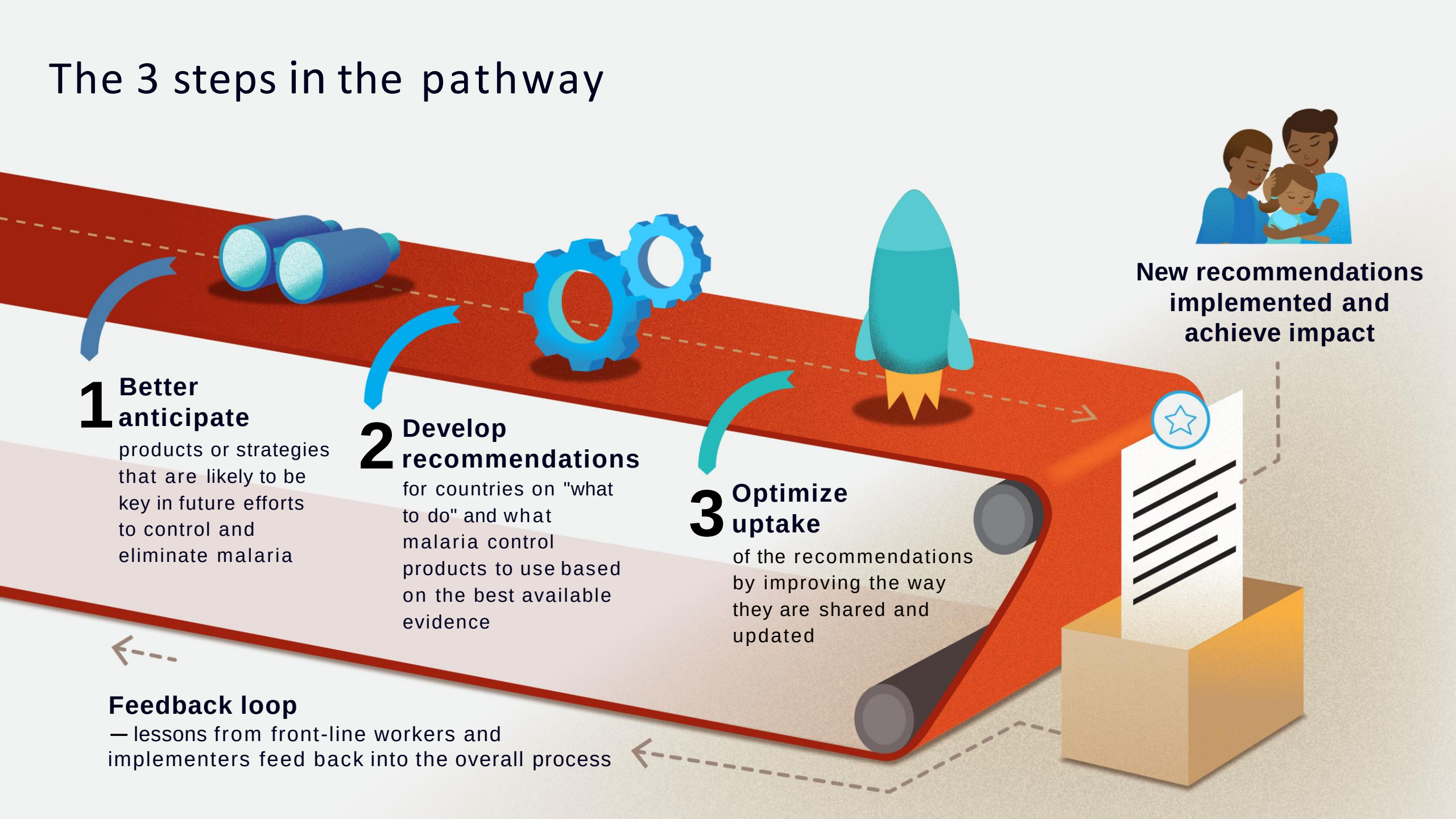
11 October 2022

Erin Shutes, Jenny Stevenson, Jane Cunningham and Peter Olumese

Global **Malaria** Programme

World Health Organization

The 3 steps in the pathway



1 Better anticipate
products or strategies that are likely to be key in future efforts to control and eliminate malaria

2 Develop recommendations
for countries on "what to do" and what malaria control products to use based on the best available evidence

3 Optimize uptake
of the recommendations by improving the way they are shared and updated

New recommendations implemented and achieve impact

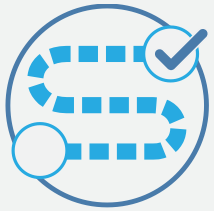
Feedback loop
— lessons from front-line workers and implementers feed back into the overall process

2 Develop recommendations

WHO's evidence-informed recommendations on malaria guide national ministries of health as they develop polices and strategic plans to combat the disease; they support decisions around "what to do".

WHO also develops implementation guidance - such as operational and field manuals - to advise countries on "how to" deliver the recommended tools and strategies.

Step 2 in the pathway involves:

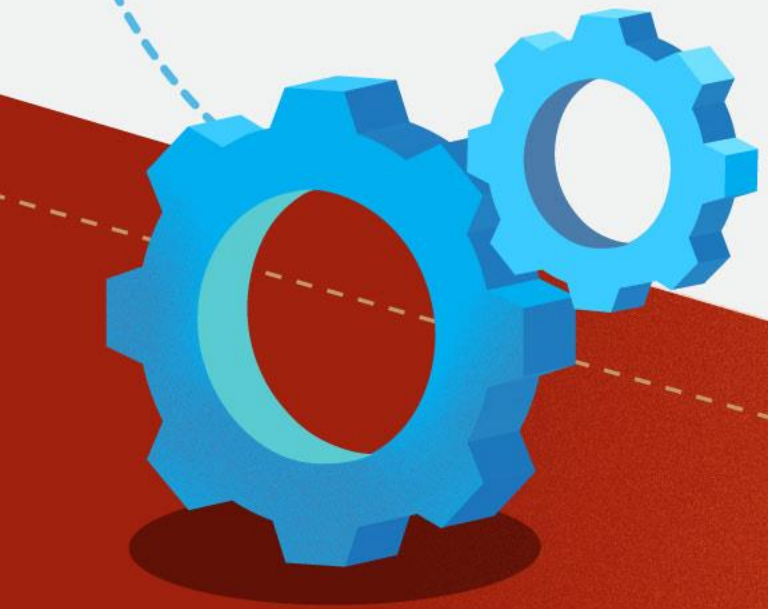


Developing recommendations for new tools and strategies through WHO's transparent, predictable and rigorous guideline development process

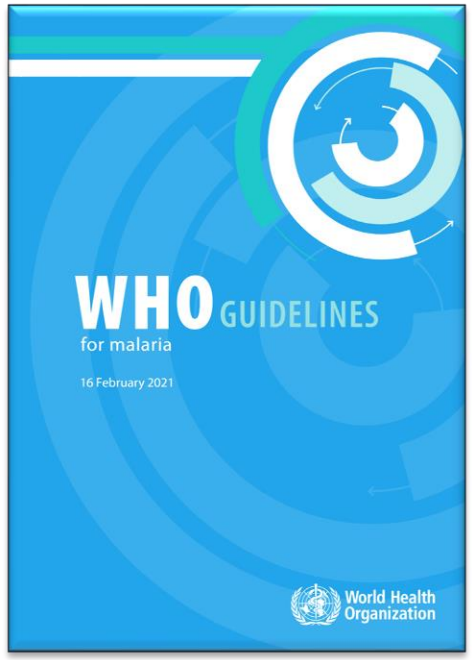
Ensuring that any recommendation around the use of a specific product is developed in parallel with its prequalification assessment

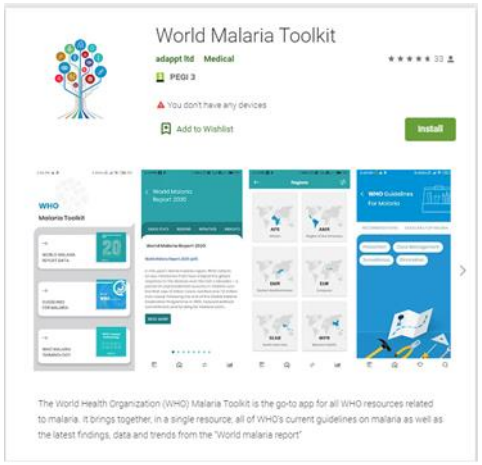
The WHO prequalification process ensures that diagnostics, medicines and other disease control products meet global standards of quality, safety and efficacy.

Issuing WHO recommendations and their related prequalification listings at the same time



Develop recommendations





- WHO Guidelines for Malaria
  - 3 Guidelines Development Groups remaining – Vector control, Diagnosis & Treatment
- 2022 updates: February – vaccine recommendation, March – vector control updates, and June – chemoprevention and elimination recommendations
- French, Arabic and Spanish versions published published on MAGICapp; mobile app translations in development
- Mobile app available for download (WMR, Threats Map and Guidelines)

Vector Control

Vector control updates and timeline – 2nd set published March 2022

Guidelines Development Group meeting held June 2021, published March 2022

- **Pyrethroid-PBO nets** – **update of conditional recommendation for, moderate certainty evidence**
  - Conditionality based on moderate certainty evidence, considerations of higher unit cost compared to pyrethroid-only nets

- **Vector control in humanitarian emergencies** –
  - **New strong recommendation for ITNs, high-certainty evidence**
  - **New conditional recommendation for IRS, very-low certainty evidence**
    - Conditionality based on very low certainty evidence, and considerations of infrastructure, access, logistical capacity and resources available

- **Cost and cost-effectiveness** of vector control interventions – systematic review considered in evidence-to-decision tables (further work planned for future updates)
- Update of guidance on the **use of DDT** (consolidating previous position statements)
- Updated **research needs**

Vector control updates and timeline – 3rd set

Guideline Development Group meeting planned for 7- 10 November 2022

GDG meeting planned for June 2022 to assess evidence for use of topical repellents was cancelled due to the review not being complete

- **Topical repellents** – update of systematic review to include studies that estimate personal protection effects and effects in particular groups e.g. forest-workers
- **Residual surface treatments** (including full indoor, selective indoor, and outdoor treatments; different application methods) – to update 2010 IRS systematic review. To consider evidence from RCTs and other study designs
- **Dual active ingredient nets**
  - Pyrethroid & non –pyrethroid: alphacypermethrin & chlorfenapyr (Interceptor® G2 BASF)
  - Pyrethroid & insect-growth regulator: alphacypermethrin & pyriproxyfen (Royal Guard ® DCT)

  Final trial data shared with systematic review teams in August 2022. VCAG assessment of public health value 5 October 2022.
- Updates planned for publication Q1 2023.

Vector Control process updates and timeline

7-10 Nov 2022

GDG meeting: review evidence, formulation of recommendations

Systematic reviews on **residual surface treatments, dual a.i. nets, topical repellents**

Nov - Dec 2022

Recommendations drafted and approved by GDG

Dec 2022 – Jan 2023

External review group provide peer review

Jan – Feb 2023 2023

Editing, GRC internal review

March 2023

MAGIC Evidence Ecosystem Foundation

Publication of revised recommendations in MAGICApp and as pdf

Progress of planned update of guidelines 2021 -2023

- Areas planned for update
  - Background information on 'how net … community effects of ITNs
  - Larval habitat management and man…
  - Housing modifications

  - New evidence on use of pyrethroid-P…
  - Vector control in complex emergenci…

  - Use of dual active-ingredient nets: ch… xyfen and pyrethroid
  - Latest evidence for use of IRS
  - Use of topical repellents for both personal and community level protection

  - Cost and cost-effectiveness of vector… ons

Evidence reviewed by GDG Nov 2020, revised recommendations published July 2021

Evidence reviewed by GDG June 2021, revised recommendations published March 2022

Evidence reviews ongoing, to be considered by GDG Nov 2022, publication expected Q1 2023

Resources listed for recommended interventions, published in 2021 & 2022. Cost effectiveness to be further considered for 2023 publication

Diagnosis

Guidelines Diagnostics

- Focus is on development recommendations for near-patient G6PD tests to support administration of 8 aminoquinolines to prevent *P. vivax* relapse
- Target product profiles and revised classification based on reviews of genotype (variant)/phenotype (G6PD activity) completed in 2022
  - Critical to inform acceptable characteristics of tests – what thresholds to capture most common variants ? What level of performance is acceptable ?
- Working in lock step with WHO PQ team – supported independent evaluation of only candidate near patient G6PD test (Standard G6PD test, SD Biosensor)
- Model to predict impact of varying test characteristics on hemolysis and relapse - intended to support GDG decision making
- Planning proposal under review; systematic review accuracy near patient G6PD tests completed (Cochrane Infectious Diseases Group)
- Set GDG and virtual scoping meeting by end of 2022

Treatment

Treatment process updates and timeline

- PICO Questions
  - For uncomplicated Pf malaria, is AS-Pyr an effective and safe option for treatment?
  - For uncomplicated malaria during the first trimester of pregnancy, is any artemisinin -based combination therapy (ACT) as safe and efficacious as quinine-based therapies?
  - For radical cure of Pv/o malaria, can the currently recommended total dose be given safely and effectively over a shorter period than 14 days?

Updated recommendations

Strong recommendation for, low certainty evidence

Artesunate -pyronaridine for uncomplicated malaria (2022)

Artesunate-pyronaridine (ASPY) is recommended as an ACT option for the treatment of uncomplicated *Plasmodium falciparum* malaria.

Strong recommendation for, low certainty evidence

Treatment in the first trimester of pregnancy (2022)

Treat pregnant women with uncomplicated P. falciparum malaria during the first trimester with artemether-lumefantrine.

Updated recommnddations

Strong recommendation for, very low certainty evidence

Short course standard dose primaquine treatment (2022)

To prevent relapse, an additional treatment option of using primaquine 0.5mg/kg /day for 7 days is recommended to treat *P. vivax* or *P. ovale* malaria in children and adults (except pregnant women, infants aged < 6 months, women breastfeeding infants aged < 6 months, women breastfeeding older infants unless they are known not to be G6PD deficient, and people with G6PD deficiency).

Conditional recommendation against, Very low certainty evidence

Short course standard high dose primaquine treatment (2022)

To prevent relapse, WHO recommends against an additional treatment option of using primaquine 1.0 mg/kg /day for 7 days to treat *P. vivax* or *P. ovale* malaria.

Treatment process updates and timeline

- 1st GDG Meeting: Finalization of PICO Questions (4-5 May 2021)
- 2nd GDG meeting - formulation of recommendations *(11-12 Nov 2021)*
- 3rd GDG meeting - formulation of recommendation *(April 2022)*
- External Review of draft recommendations; finalization of recommendations and submission to GRC *(May - June 2022)*
- GRC review and approval of Guideline updates *(September 2022)*
- Publication of recommendations *(October 2022)*

WHO Informal Malaria Dissemination Taskforce 17 May 2022

Meeting report

Background

On 8-9 February 2022, the World Health Organization (WHO) convened its first virtual meeting of the Malaria Dissemination Taskforce. The Taskforce is comprised of WHO staff from country, regional and global levels, National Malaria Programme (NMP) staff, and representatives from donor and partner agencies (see Annex 1). It was established to guide WHO's efforts to improve the way that malaria guidance is packaged and shared, with a view to optimizing its uptake in malaria-endemic countries.

A second, 90-minute virtual Taskforce meeting was held on 17 May 2022. The meeting was divided into 3 sessions: (1) a review of the action plan, including progress in implementing Q2 priorities; (2) a presentation on WHO's new malaria chemoprevention recommendations and an overview of the ways that WHO currently tracks interest in, and use of, its guidance; and (3) a presentation on the OpenWHO platform.

Summary of the Dissemination Taskforce sessions

Session 1: Review of action plan and progress in implementing Q2 priorities

Since the first Taskforce meeting, the WHO Global Malaria Programme (GMP) has carried out the following activities, as per the action plan:

- **PPT slide deck:** Creating a short set of slides (see Annex 2) that clearly describe the 3 ways that stakeholders can access WHO malaria guidance: the website, the MAGIC app platform, and a mobile app. The slides were developed in March 2022 and shared with country-based members of the Malaria Dissemination Taskforce for feedback. A final version of the slides, reflecting any feedback received, was shared with the global malaria team on 13 June 2022. WHO colleagues have been encouraged to incorporate the slides in their presentations with WHO staff, NMP managers and partners.
- **Malaria guidance in the pipeline:** Developing a system to inform stakeholders about any guidance that WHO expects to publish in the coming months, to help facilitate its early and quick adoption at the country level. Two proposals were shared during the Taskforce meeting: in the first, the guidance is grouped chronologically, and in the second, by technical area. Taskforce members recommended using both methods. Following the meeting, GMP created a webpage to display this information. The webpage has been shared with the global malaria team and a targeted group of technical stakeholders.
- **New animated videos:** Creating 2 new animated videos aimed at communicating, in a simple and visually engaging way, new WHO recommendations on seasonal malaria chemoprevention (SMC) and perennial malaria chemoprevention (PMC). The videos, available in French and Portuguese, share the same "look and feel" as a December 2021 video focused on HRP2 gene deletions, with whiteboard animation and soundbites from WHO

experts to complete the narrative. They were disseminated widely on 3 June 2022, as part of WHO's broader communication on new and updated chemoprevention guidance.

- **Language versions of the *WHO Guidelines for malaria*:** The consolidated guidelines were made available in Arabic in May 2022, and a Spanish version of the guidelines is expected in Q3 of this year.
- **Leveraging partner networks:** An APMEN newsletter in April 2022 featured information and links to WHO's mobile app. RBM promoted WHO dissemination tools in its June 2022 newsletter and through its social media platforms. APLMA has offered to host a webinar to promote new WHO guidance that is relevant to the Asia-Pacific region.

Taskforce members were also informed about priorities for Q3 and Q4 2022, including:

- **Additional information products:** Developing additional materials and platforms to expand access to WHO malaria guidance, complementing the existing digital tools. These may include, for example, pre-recorded briefings with technical experts (video) and / or Q&A interviews with experts (audio).
- **Mailing lists.** Updating lists of primary audiences and exploring ways to break down the current external mailing list (5000+ people) into categories to allow for more targeted outreach.
- **Monitoring & evaluation**: Identifying an effective mechanism (with external support) to track uptake of WHO's malaria guidance and determine whether WHO is achieving its malaria dissemination goals**.**
- **Adding push notifications** to the mobile app to inform users of any new guidance updates.

Session 2: New chemoprevention recommendations and an overview of how WHO tracks use of its guidance

This session began with a presentation on new and updated WHO recommendations on malaria chemoprevention. The recommendations reflect a paradigm shift within WHO that provides greater flexibility to national malaria programmes to adapt malaria control strategies to the local context. As a general rule, the recommendations have fewer restrictions; they no longer specify, for example, strict age groups, transmission intensity thresholds, numbers of doses or cycles, of specific drugs. NMPs are encouraged to tailor chemoprevention strategies to local needs and determine which age groups should be targeted, where, for how long, how frequently, and with which drugs.

Discussion:

While welcoming the increased flexibility, several country-based Taskforce members flagged that it may lead to a "misunderstanding" at the country level. If there are differences in technical viewpoints among country-based stakeholders, "Who becomes the arbiter?" There was a recognition that some countries do not have the capacity to take on this added responsibility. Communication around any new guidance will need to be carefully managed and, in some cases, additional guidance and/or support from WHO at the country level may be needed.

A second presentation from the WHO Quality Norms and Standards (QNS) department shared an approach for tracking and monitoring the uptake of digitally available WHO guidance. The presentation considered the steps in the "Journey of a guideline" (Annex 3), from publication of a guideline through to its adoption, adaptation, and implementation at the country level, and its contribution to impact in reducing malaria disease burden. As part of its scope of work, QNS prioritizes tracking available data from outlets that disseminate WHO guideline content digitally, including data measuring the level of interest generated around a guideline and its reuse. Interest in a guideline is tracked through, for example, the number of downloads, page views and summary statistics, such as an "*Altmetrics score*" which provides an overall digital assessment of a given document (eg. mentions

in the news, social media, etc). WHO also tracks reuse of a guideline through scientific citations and requests for translations. Tracking the adoption, adaptation and implementation of a guideline at the country level is a process that cannot be automated from WHO Headquarters – it is a country-led process, supported by WHO, that will require the collection and analysis of local data, using both qualitative and quantitative methods. QNS' approach to tracking impact related to changes in health outcomes relies on global data sources, such as the WHO Global Health Observatory (on global health outcomes) or national health information systems (on national health outcomes).

Session 3: OpenWHO platform

The third session opened with a presentation from the WHO Learning and Capacity Development unit on OpenWHO, a free and multilingual online learning platform that was first launched in 2017 to improve the response to health emergencies. Target audiences include frontline health workers, decision-makers, and the public at large. Over the last 5 years, the platform has featured courses on 28 diseases in 64 languages, with a total of 6.6 million course enrollments. To date, three-quarters of OpenWHO users have been from low- and middle-income countries. Relying on the WHO open-access policy, content can be shared through this platform in its original format. Over the last year, country-focused portals have been established to make it easier for users to navigate their way through the platform, particularly in low-bandwidth settings.

A second presentation focused on the use of the OpenWHO platform to share training material focused on malaria elimination. The new curriculum is designed to orient national malaria programmes towards the strategies and activities needed to eliminate malaria, achieve malaria-free certification and prevention re-establishment of transmission. Information shared through this course was drawn from WHO guidance documents and is locally adaptable.

The OpenWHO platform is a "one-stop shop" that can accommodate videos, PDF documents and slide sets, and its flexible format allows for regular content updates. OpenWHO and other massive open online course (MOOC) approaches play an important role but are not intended to replace facilitated trainings, whether in person or virtual; both are important.

Conclusions

The 3rd meeting of the Dissemination Taskforce will be held on 18 October 2022. Feedback on the action plan and / or the products that have been developed to date, such as the videos, is very welcome. Please send any comments to Saira Stewart at: stewarts@who.int.

Annex 1:

Participants in the 2nd meeting of the Malaria Dissemination Taskforce on 17 May 2022
Country Representatives

Dr Ali Abdirahman, National malaria programme, Somalia

Dr Adel Aljasari, WHO Yemen field staff

Dr Fatunmbi Bayo, WHO Uganda

Dr Horace Cox, Ministry of Health, Guyana

Dr Gopinath Deyer, WHO Thailand

Dr Tanu Jain, Director, National Vector Borne Disease control programme, India

Dr Oscar Lapouble, WHO Suriname

Dr Jimmy Opigo, National malaria programme manager, Uganda

Dr Zaixing Zhang, WHO Cambodia

Dr Tam Jenn Zhueng, Malaria Programme Manager, Malaysia

Partner Organizations

Ms Valentina Buj, Global Malaria and Partnerships Advisor, UNICEF

Dr Susann Nasr, Senior Disease Advisor, Malaria, Global Fund

Dr Matt Murphy, CDC

Ms Delphine Thizy, RBM Partnership to End Malaria

Dr Meera Venkatesan, USAID-PMI

WHO Regional Malaria Advisors

Dr Elkhan Gasimov, Regional Malaria Advisor, EURO

Dr James Kelley, Regional Malaria Advisor, WPRO

Dr Roberto Montoya, Regional Malaria Advisor, PAHO

Dr Jackson Sillah, Medical Officer, AFRO

Dr Neena Valecha, Technical Officer, SEARO

Dr Ghasem Zamani, Regional Malaria Advisor, EMRO

Invited Speakers

Ms Mafalda Dancante, WHO LCD

Dr Kim Lindblade, CDC

Dr Anis Nassar, WHO QNS

Ms Heini Utunen, WHO LCD

WHO HQ Secretariat

Ms Kidist Bartolomeos, SCI/QNS/PDI

Dr Andrea Bosman, Director a.i. UCN/GMP

Dr John Grove, Director SCI/QNS

Dr Srikanth Kondreddy, SCI/QNS/PDI

Dr Anis Nassar, SCI/QNS/PDI

Dr Peter Olumese, GMP

Ms Camille Pillon, GMP

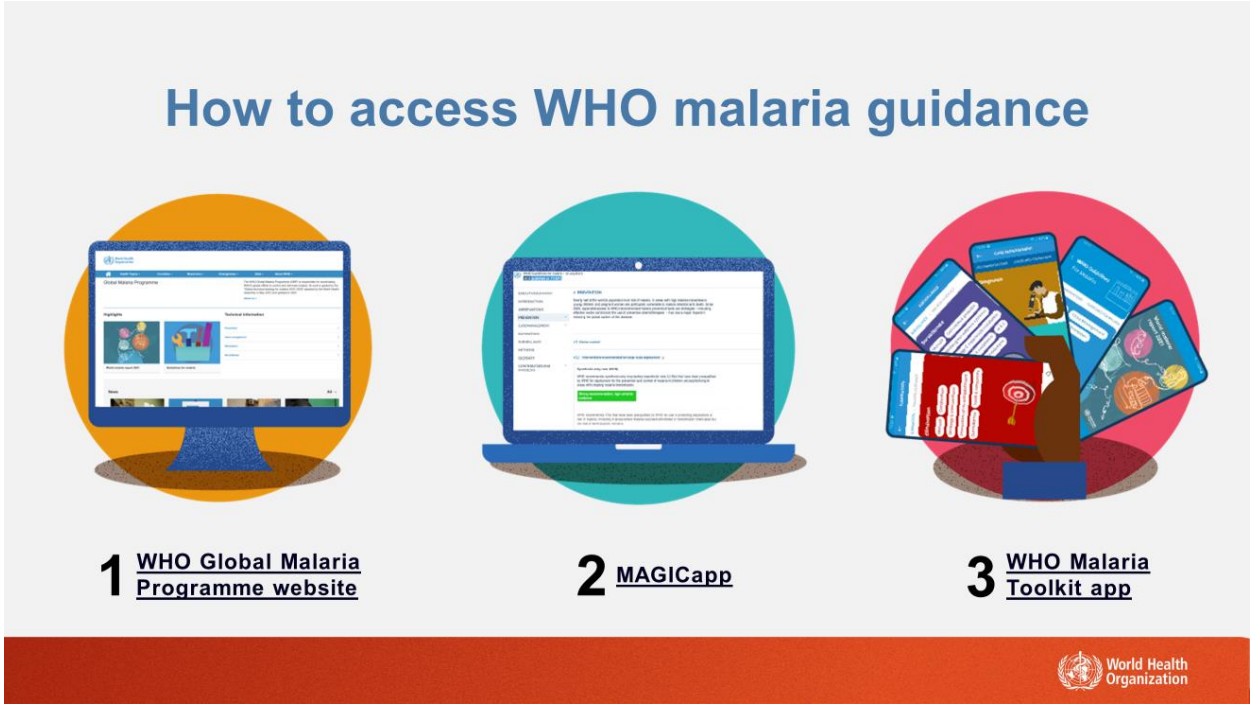
Dr Alastair Robb, GMP

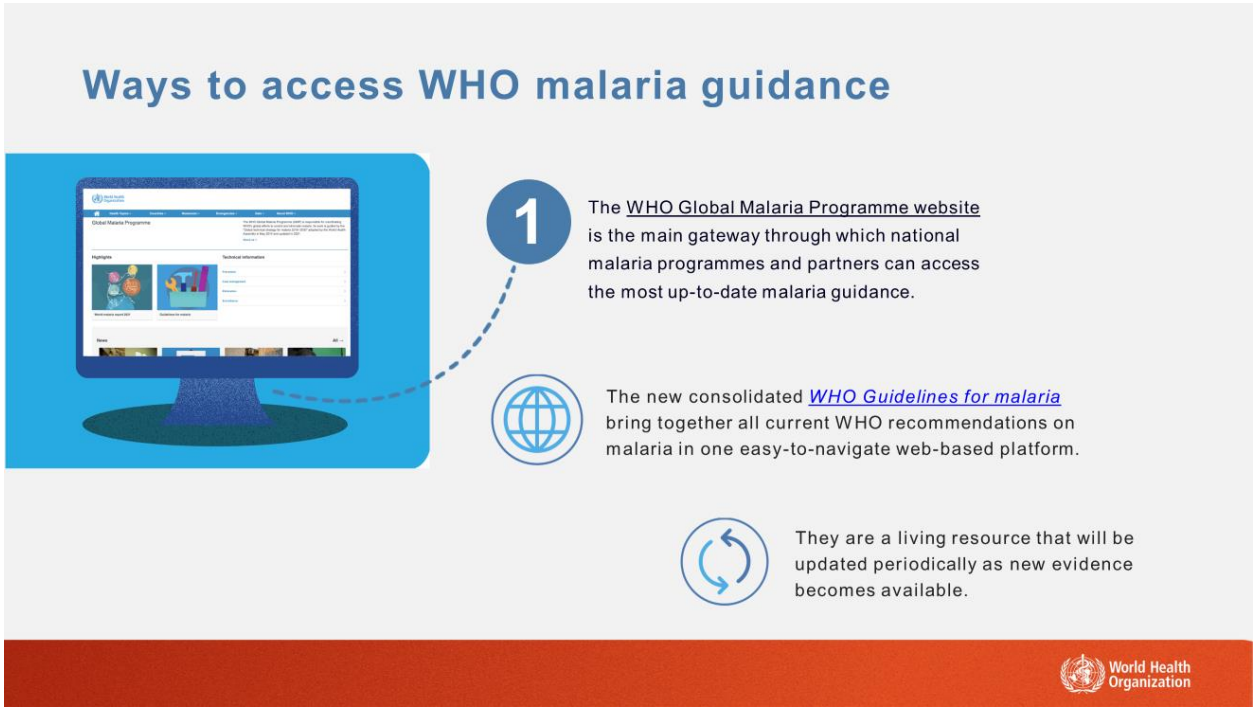
Ms Erin Shutes, GMP

Ms Saira Stewart, GMP

Annex 2

Slide deck describing the platforms through which WHO malaria guidance can be accessed





Ways to access WHO malaria guidance

WHO's malaria guidance can also be found on 2 digital platforms:

2

Through MAGICApp, you can access a consolidated set of all WHO malaria guidance, including:

- All official WHO recommendations
- Operational manuals
- Handbooks
- Frameworks
- And links to other resources

3

All WHO recommendations can also be accessed through an easy-to-navigate mobile "Malaria Toolkit app".

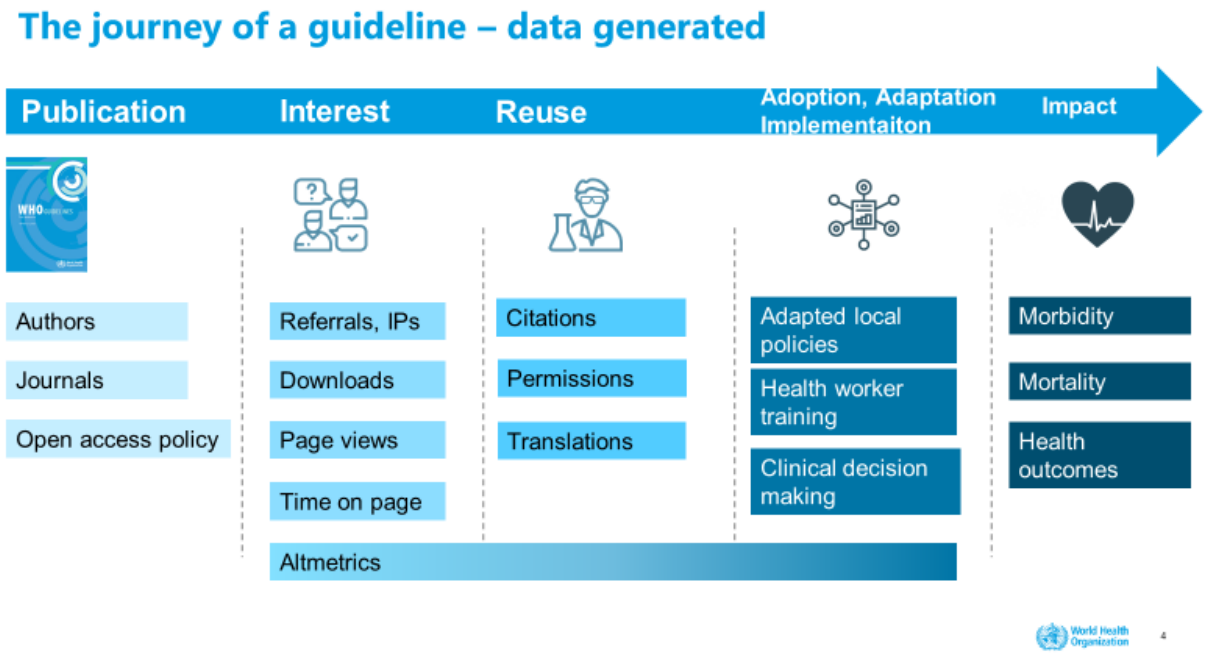
The app is available for iOS devices and Android devices.

In addition to the WHO recommendations, it provides the latest data and trends from the *World malaria report*.

World Health Organization

Annex 3

A slide describing the journey of a malaria guideline and the type of data that QNS proposes for tracking and monitoring different components of digital-content uptake. Digital content ranges from a PDF posted on WHO platforms [corporate site (www.who.int) and Intuitional Repository Information system (IRIS)], publications in peer review journals and guideline metadata deposited into various publicly available websites.



Source: *WHO/SCI/QNS*

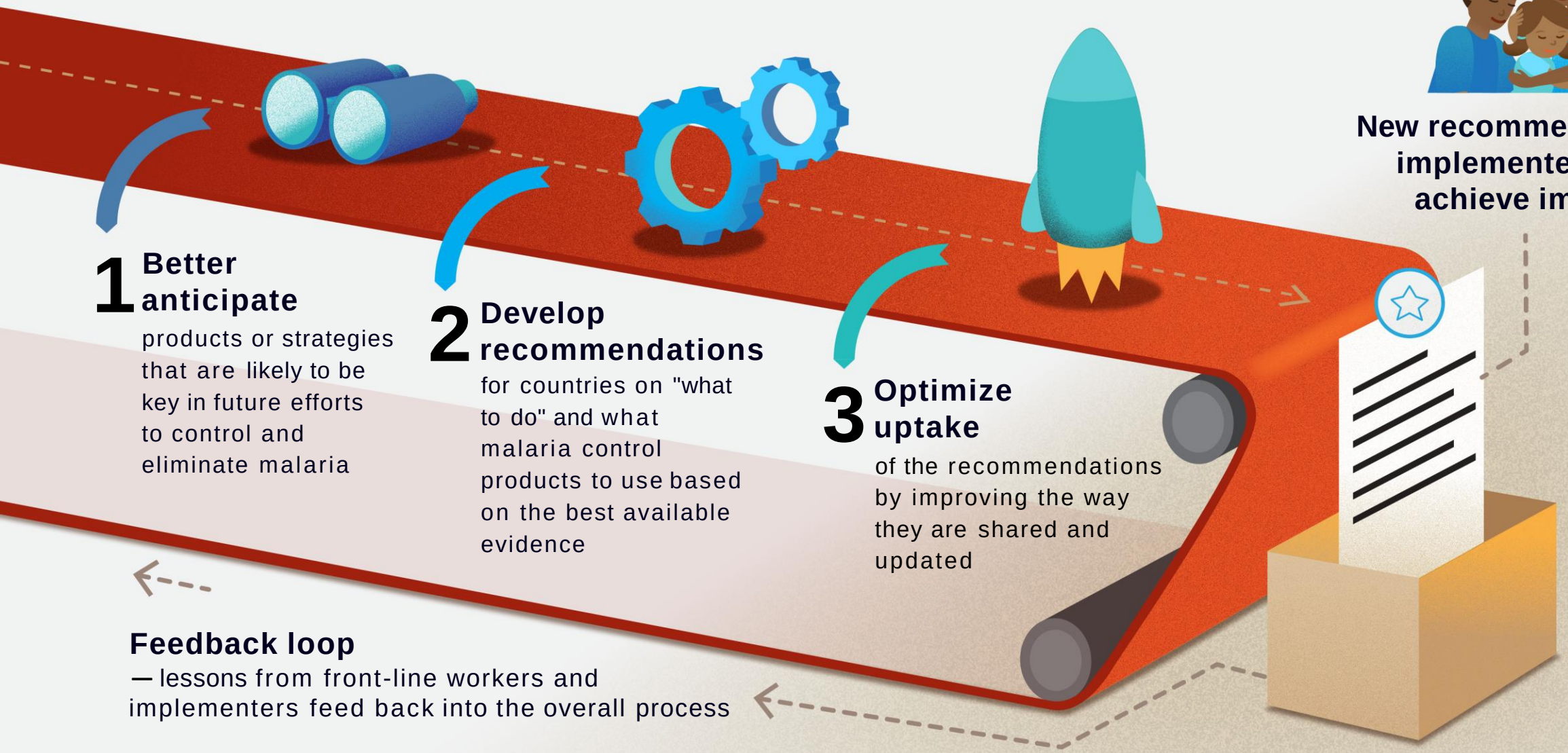
Optimizing uptake of WHO malaria guidance

11 October 2022

Global **Malaria** Programme

World Health Organization

The 3 steps in the pathway



1 Better anticipate

products or strategies that are likely to be key in future efforts to control and eliminate malaria

2 Develop recommendations

for countries on "what to do" and what malaria control products to use based on the best available evidence

3 Optimize uptake

of the recommendations by improving the way they are shared and updated

New recommendations implemented and achieve impact

Feedback loop

— lessons from front-line workers and implementers feed back into the overall process

GMP dissemination strategy

Overall goal? Optimizing uptake of WHO's malaria guidance in endemic countries by improving the way it is packaged and shared.

Main target audiences?

Primary: Staff working within Ministries of Health, National Malaria Programmes and implementing agencies

Other: Health providers, epidemiologists, the vector control and research communities, representatives from CSOs, funders, medical students, people at risk of malaria.

Key digital platforms (1) WHO website

World Health Organization

Health Topics | Countries | Newsroom | Emergencies | Data | About WHO

Global Malaria Programme

The WHO Global Malaria Programme (GMP) is responsible for coordinating WHO's global efforts to control and eliminate malaria. Its work is guided by the "Global technical strategy for malaria 2016–2030" adopted by the World Health Assembly in May 2015 and updated in 2021.

About us >

Highlights

World malaria report 2021

Guidelines for malaria

Technical information

- Prevention >
- Case management >
- Elimination >
- Surveillance >

New web page: «How to WHO malaria guidance»

- New page on WHO website clearly describes how to access WHO malaria guidance through digital platforms.
- Available in multiple languages

Web launch of new guidance on malaria chemoprevention and elimination

Updated WHO recommendations for malaria chemoprevention and elimination

3 June 2022 | Departmental news | Reading time: 4 min (963 words)

WHO published today in the consolidated guidelines for malaria a package of new and updated recommendations across a number of technical areas – from malaria chemoprevention and mass drug administration to elimination. The guidelines encourage countries to tailor the recommendations to local disease settings for maximum impact.

Clear, evidence-informed WHO recommendations guide managers of national malaria programmes as they develop polices and strategic plans to combat the disease; they support decisions around "what to do". WHO also develops

Related

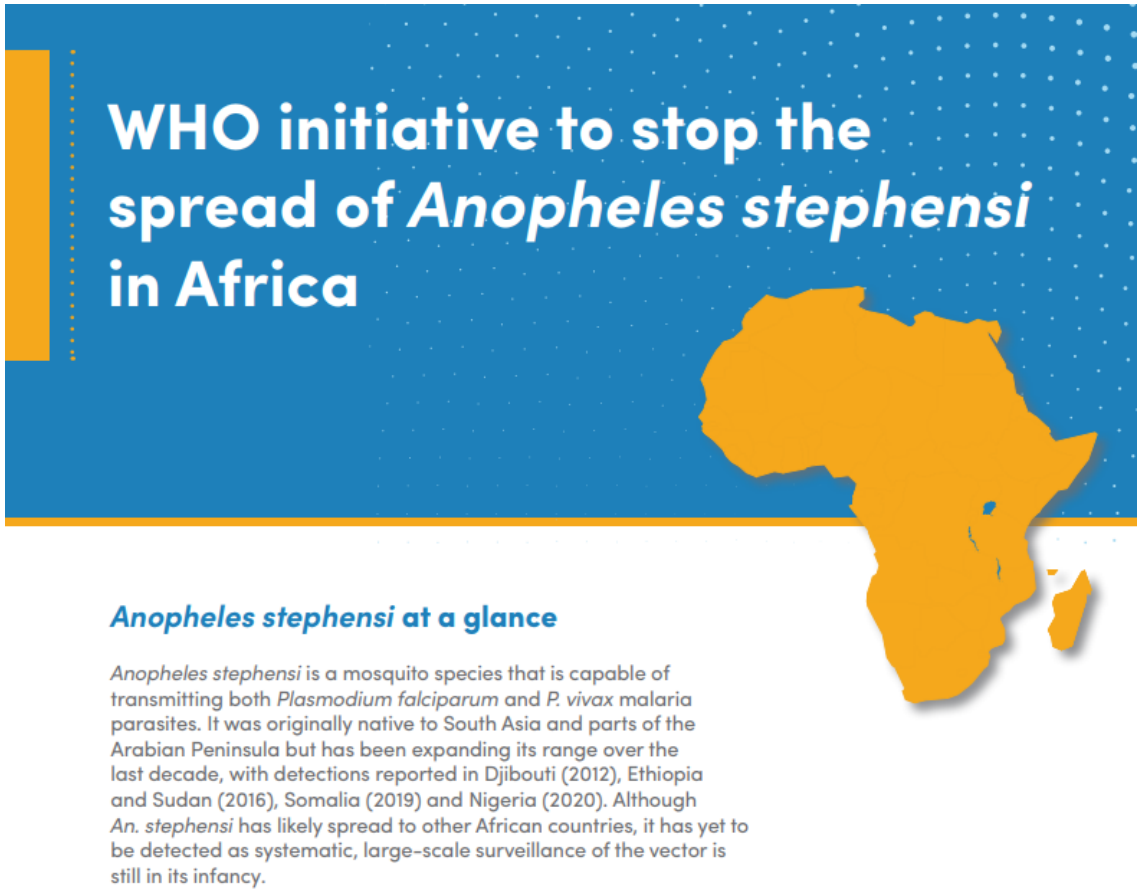
Global Malaria Programme

WHO Guidelines for malaria

New WHO recommendations on malaria elimination

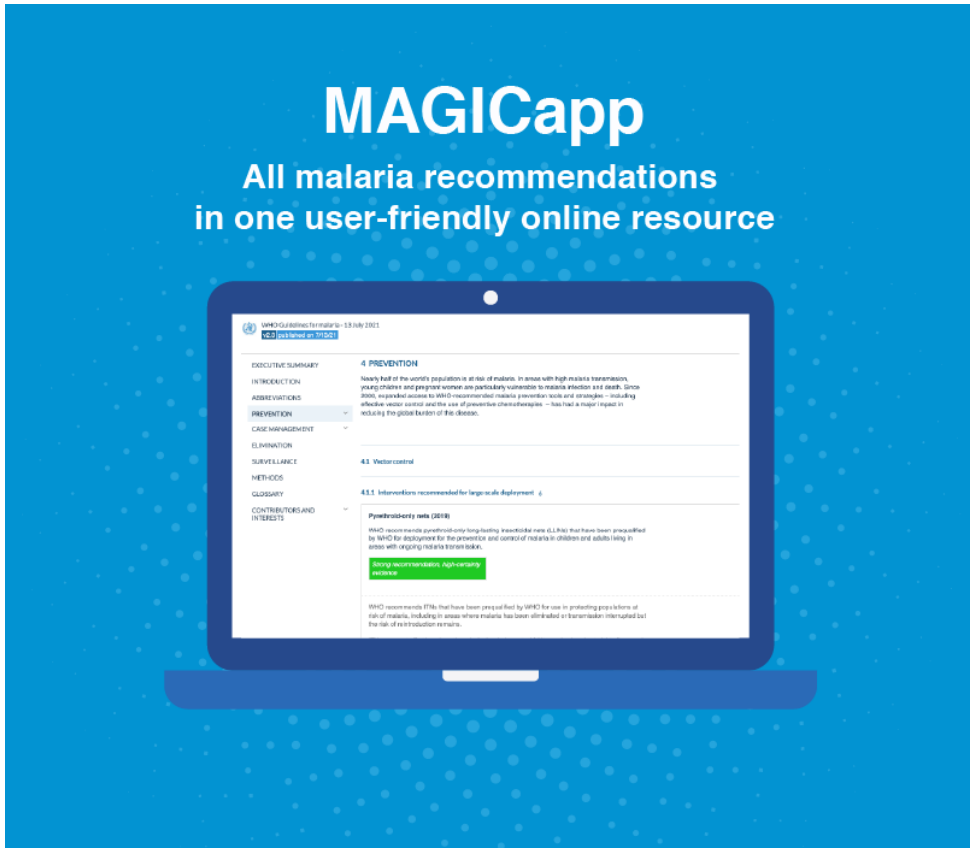
- Comprehensive information package published in June 2022
- Information notes point readers to MAGICapp and related technical content on WHO website

Web launch of new WHO initiative



- Launch of information package highlighting new WHO initiative to stop the spread of *Anopheles stephensi* in Sept 2022:
  - Advocacy brochure
  - News release
  - Feature story amplifying voices from the field

Key digital platforms (2) MAGICapp



- *WHO Guidelines for malaria* published on MAGICapp in February 2021 (English).
- French version added in July 2021.
- Recommendations continually updated based on the latest available evidence

NEW

Language versions published in Arabic (June 2022) and Spanish (October 2022)

MAGICapp: key metrics

- As of 10 October 2022:
  - More than 46,000 pageviews of the WHO Guidelines for malaria on MAGICapp (Eng, Fr)
  - More than 142,000 downloads (PDF) of the English-language guidelines
  - More than 31,000 downloads (PDF) of the French-language guidelines
- A more than doubling in pageviews and PDF downloads of the *WHO Guidelines for malaria* (English, French) since March 2022

Key digital platforms (3): Mobile app

- Launch of expanded version of mobile app in 2020 with a section focused on malaria guidance
- A user-friendly resource to rapidly verify data and guidance in the field
- Available in English; language versions planned in 2023
- Latest metrics: more than 7500 downloads as of 10 October 2022

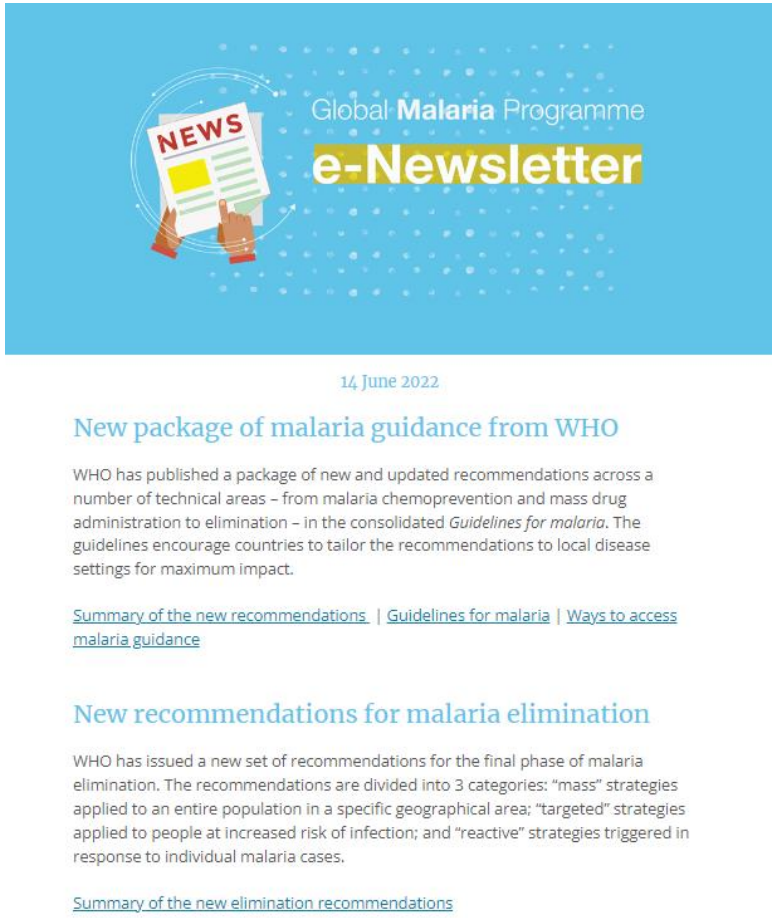
A new approach: animated videos

- Short, animated videos that describe WHO malaria recommendations in a simple and visually engaging way
- Available in multiple languages
- First video on HRP2 gene deletions released in Dec 2021

NEW

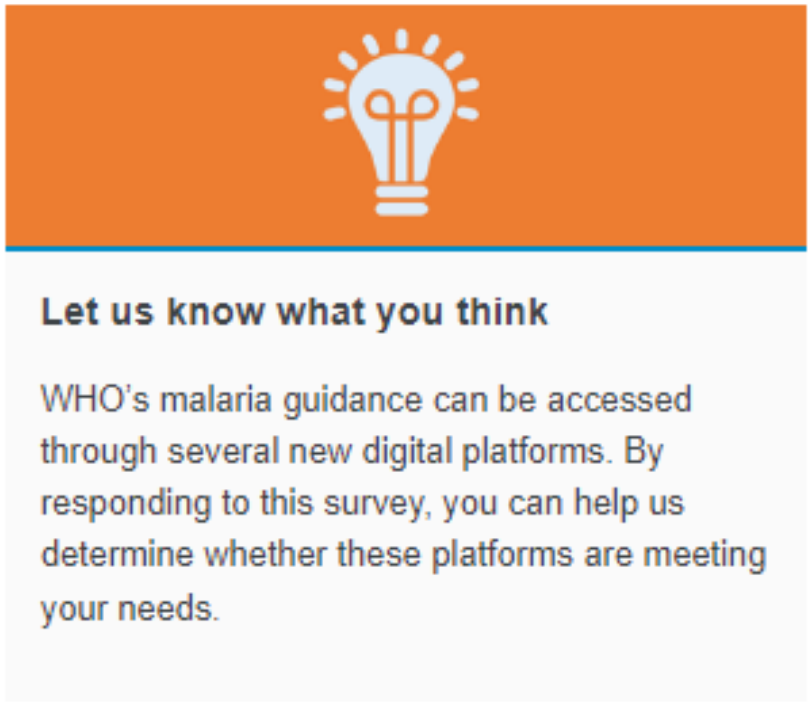
New videos focused on SMC, PMC (June 2022) and guidance for monitoring insecticide resistance in mosquito vectors (Aug 2022)

Distribution channels



- Proactive sharing of new guidance and dissemination tools through:
  - The global malaria team mailing list (250 colleagues across the 3 levels of WHO)
  - GMP's "e-Newsletter" and "News Update" mailing lists (approx. 8000 subscribers, including technical partners and NMPs)
  - Social media
  - WHO media list (approx. 99,000 journalists)
  - Partner networks (e.g. RBM, APMEN)

Survey on digital dissemination platforms



- Survey launched on 30 Sept 2022 and will be open for 1 month.
- Questions aim to assess:
  - Are WHO's malaria stakeholders aware of the new dissemination platforms?
  - Are they currently using the platforms?
  - Are the platforms easy to navigate? And if not, suggestions for improvement?
  - Should WHO consider providing malaria guidance through other digital platforms?

WHO Informal Malaria Dissemination Taskforce

- Informal group established in late 2021 to guide and support WHO's malaria guidance dissemination efforts
- Scope of work:
  - review and provide input to WHO's malaria guidance dissemination strategy
  - advise on dissemination tools and platforms
  - support the development of a monitoring & evaluation plan

WHO Informal Malaria Dissemination Taskforce

- Participation by invitation
- More than 25 members, including:
  - WHO staff based at global, regional and country levels
  - Country-based malaria focal points (at least one from each endemic region)
  - Partners: Global Fund, PMI, RBM and others
- First 2 meetings held in Feb and May 2022; 3rd meeting planned on 18 Oct

Implementing the action plan: key priorities for Q2 2022

- Priorities identified in GMP's dissemination strategy and endorsed by the Dissemination Taskforce:

✓ Provide Arabic and Spanish versions of the guidelines on MAGICapp

✓ Create PPT slide decks with links to dissemination platforms (Eng, Fr, Sp)

✓ Finalize videos on new WHO chemoprevention recommendations

✓ "What's on deck": targeted communication semi-annually

 Amplify WHO malaria guidance through partner networks

Progress in implementing Q2 2022 priorities

APMEN UPDATES

ICYMI: APMEN TechTalks on mosquito repellents and attractants

The challenge to address outdoor-biting mosquitoes remains a tough nut to crack and is a strong contributor to residual malaria. The experts explored new products, and new attractants that are useful for trap collections. Watch recorded video here.

APLMA-APMEN and GLIDE Launch New Partnership to End Mosquito-borne Diseases

A new partnership to support Governments to help drive the elimination of malaria and lymphatic filariasis in Papua New Guinea, and malaria elimination in Indonesia and Timor-Leste via innovative cross-disease and cross-border approaches. Read more.

Single-dose tafenoquine approved for children with vivax malaria by Australian TGA

Australian Therapeutic Goods Administration (TGA) approved the use of single dose tafenoquine for the prevention of relapsing Plasmodium vivax malaria in children aged 2 years and above on 14 March 2022. Read more.

World Health Organization Malaria Toolkit app

The Global Malaria Programme Toolkit app brings together the content of the latest World malaria report and of the consolidated WHO Guidelines for malaria in one easy-to-navigate resource. Links to download the app here.

- WHO dissemination tools featured in APMEN newsletter (April 2022) and in RBM newsletter + Twitter feed (June 2022)
- APLMA offered to host webinar to promote new WHO guidance relevant to the Asia-Pacific region.

Progress in implementing Q2 2022 priorities

- **New slide decks** with links to key dissemination platforms in English, French and Spanish (Arabic coming soon)
- WHO global malaria team colleagues encouraged to incorporate slides into presentations for country-based stakeholders

Implementing the action plan: key priorities for Q3 and Q4 2022

- ✓ Push notifications: add to WHO “Malaria Toolkit” mobile app
- Stakeholder mailing lists: update and maintain lists of primary audiences to ensure we are reaching the right people
- New dissemination tools: develop additional tools to share our malaria guidance (e.g. audio Q&As, infographics)
- Monitoring & evaluation: Identify effective mechanism to track uptake of WHO malaria guidance

Other barriers to uptake of WHO malaria guidance

- Lack of equipment, supplies and human resources
- Limited / inadequate funding
- A need for greater programme integration and multi-sectoral collaboration at the national level
- Limited capacity at country level to adapt the guidance into the local context
- Lack of local data to support adoption and adaptation of global guidance
- Regulator requirements

Next Taskforce meeting: 18 October 2022

- **Agenda for next week's meeting:**
  - Progress in implementing the dissemination action plan
  - Experiences from South-East Asia on adoption and adaptation of WHO malaria guidance
  - New WHO initiatives focused on *Anopheles stephensi* and antimalarial drug resistance in Africa
  - Discussion with Taskforce members on how they can support WHO in amplifying these initiatives

WHO Guidelines for malaria- Regional Feedback on policy recommendations

Malaria Policy Advisory Group meeting

11th October 2022

Dr Ebenezer Baba (WHO/AFRO), Dr Ghasem Zamani (WHO/EMRO)

Global **Malaria** Programme

World Health Organization

Background

- GMP Policy recommendation initiated in **June 2022**
- Other dissemination events include:
  - Official circulation of policy recommendations and FAQs to ministry of health in WHO AFRO and WHO EMRO regions
  - Updates at RBM to
  - RBM program Manager meeting East African region: 6th June 2022
  - RBM program Manager meeting South African region: 5th July 2022
  - RBM program Manager meeting West African region: 26th July 2022
  - RBM program Manager meeting Central African region: 9th August 2022

- Following the dissemination of policy recommendations by the GMP, regional team continues to engage with national malaria programs, and we have also **recirculated the frequently asked questions** in response to clarifications sought.
- **Planned webinar for EMR countries for introduction for magicApp** and new recommendations
- **Using social media** and **EMRO websites /AFRO internal newsletters**

How to access WHO malaria guidance

1 [WHO Global Malaria Programme website]

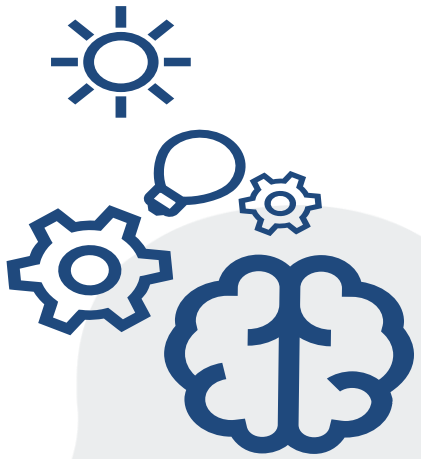
2 [MAGICapp]

3 [WHO Malaria Toolkit app]

General Observations…(1)

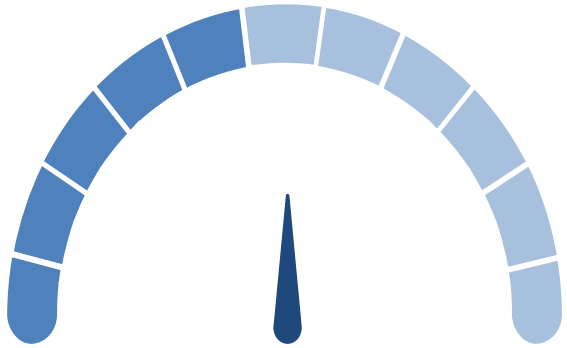
- Beyond clarifications on the substance of the recommendations are **several clarifications related to the implications of policy recommendation to countries respective context**.
- Member states encouraged to consider during respective ***national health / malaria policy and strategy reviews*** using the platforms such as respective **national malaria technical working groups** where these exist and planned **engagements on intervention re-stratification**.
- **Greater flexibility presents greater complexity in decision analysis**, how to address asymmetries in information access, aligned to who decides on what?

General Observations…(2)



- National Malaria TWG reviews need to reflect on the implications of policy recommendations at three levels:
  - ***Potential contributions towards accelerating the attainment of existing strategic objectives*** (i) attainment of national malaria plan objectives and targets, (ii) Potential contributions towards attainment of existing strategic plan targets, (iii) Planning cycles of national strategic plans
  - ***Implications of policy recommendations on existing strategic approaches***. Within which there is a need to define contextual applicability, what, how, when and scale of implementation .
  - ***National Health Policy Implications***: Implication of any recommended amendments to actions that needs to be taken at (i) national health policy levels, e.g. Regulatory policies, Essential medicines lists, drug policy, minimum health service packages etc ***including financial aspects***.

Notable regional actions



- On going discussions on support to the development of a ***framework for policy adaptation and implementation of Perennial Malaria Chemoprevention (PMC).***

  TORs & CNs developed and signed off , team being constituted.

  - ✓ Audience: MOH Malaria technical working groups and stakeholders
  - ✓ What: A decision tree of key considerations in adaptation to local context t inform recommendations to the MOH Policy & NMCP strategy review on PMC
  - ✓ How: Core team of 2 consultants to be onboarded to develop and field test the framework
  - ✓ When : Next 6 months

- Explore integration as ***part of roll out of policy dialogue associated with malaria intervention stratification manual rollout*** when available

Recommendations

- ❖ Need for organized ***internal orientations on policy recommendations***
- ❖ Internal organization to support ***response to clarification*** from the dissemination.