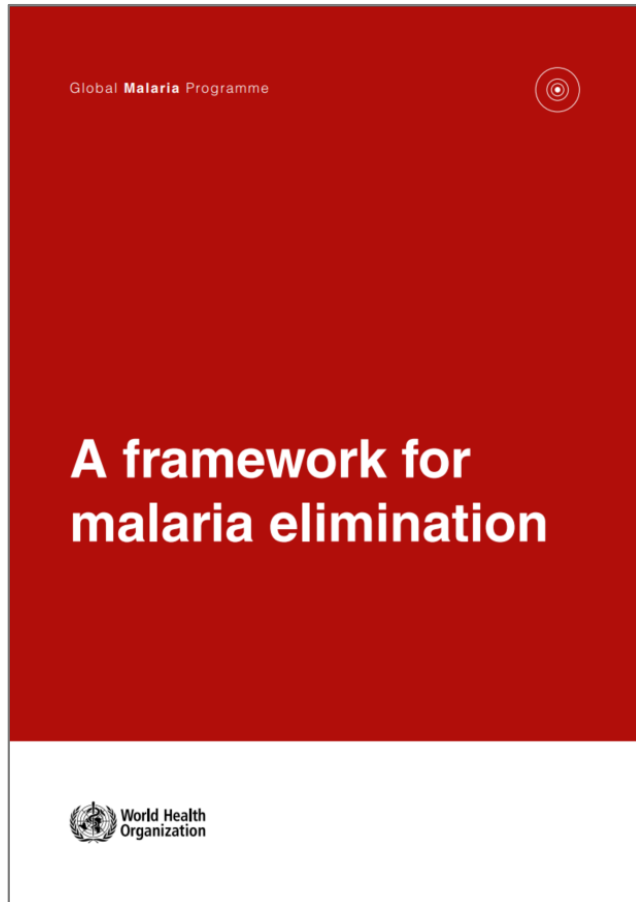

**Eastern and Southern Africa National Malaria Programmes
and Partners Annual Meeting
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Guidance on malaria elimination

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WHO Guidance on Malaria Elimination



- New guidance for malaria elimination developed in 2017
- The *Framework for malaria elimination* encourages all countries to accelerate towards malaria elimination, in line with the *Global technical strategy for malaria 2016–2030*
- Highlights programme actions across the continuum of transmission intensity from high to zero and prevention of re-establishment

Malaria Transmission Continuum



All countries can accelerate towards elimination from wherever they lie on the malaria transmission continuum

Programme actions (in a country or region) will vary across the spectrum of transmission intensity

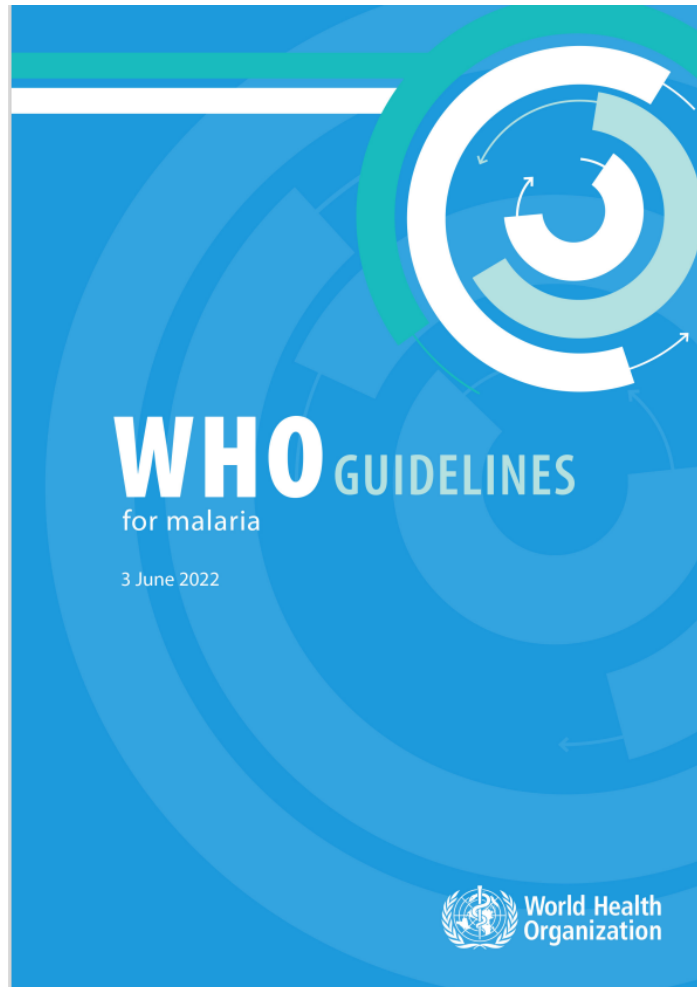
Stratification is the process of classifying geographical areas or localities according to epidemiological, ecological, social and economic determinants to guide malaria interventions

Annual or biannual audits, stratification and operational planning, with anticipation of transitions to new strata, is critical to accelerating progress

Principles of Malaria Elimination

- 1 Elimination is a country-owned and country-led process
- 2 Elimination requires significant political will, sufficient budget, skilled human resources, strong leadership and effective coordination
- 3 Elimination requires intensification and focusing of effective and timely interventions based on high-quality, real-time surveillance data at the most granular level possible
- 4 Subnational areas can move towards elimination at different paces within the same country
- 5 Operational research to improve guidance and implementation is an essential component of an elimination strategy
- 6 Elimination in countries and overseas territories is recognized through WHO certification
- 7 Post-elimination, countries must implement measures to prevent re-establishment until there is global eradication of malaria

Guidelines for elimination



4 PREVENTION

4.2.6 Mass drug administration (MDA)

4.2.6.3 MDA to reduce transmission of *P. falciparum* in very low to low transmission settings

6 INTERVENTIONS IN THE FINAL PHASE OF ELIMINATION AND PREVENTION OF RE-ESTABLISHMENT

6.1 Intervention recommended for mass implementation in delimited geographical areas

6.2 Interventions targeting infections in people at higher risk

6.3 Interventions in response to detection of confirmed malaria cases

Additional interventions for elimination

Countries or areas that have attained very low to low levels of transmission require additional interventions in order to eliminate malaria. These interventions should:

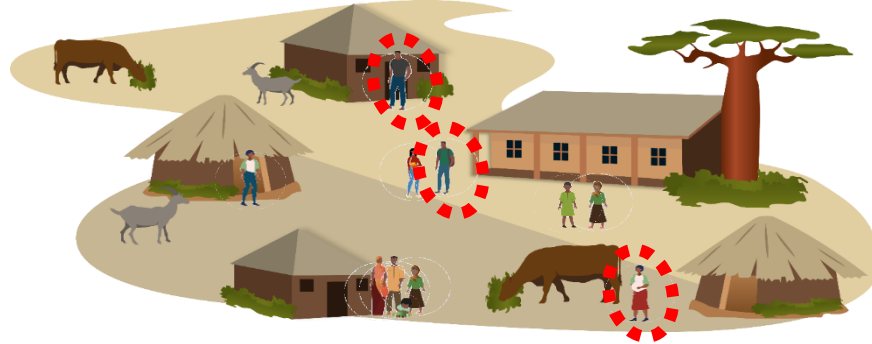
- accelerate the decline in malaria transmission to a level at which intensive surveillance, i.e. follow-up of every case, is feasible;
- target specific groups at increased risk of infection that may not be reached adequately through routine prevention and treatment services; and
- respond to individual cases and foci to interrupt transmission.

Mass, Targeted and Reactive Strategies for Elimination



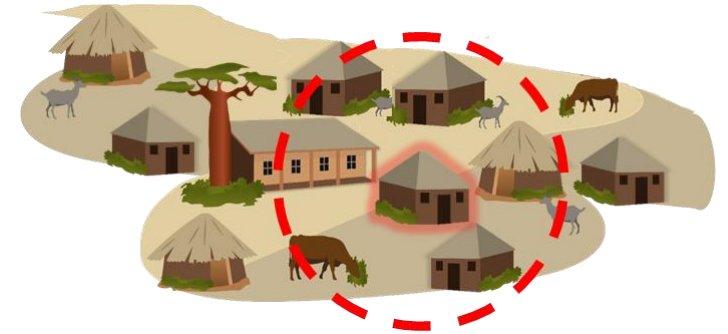
Mass strategies

applied to the entire population of a delimited geographical area, whether a hamlet, township or district



Targeted strategies

target specific groups at increased risk of infection that may not be reached adequately through routine prevention and treatment services



Reactive strategies

respond to individual cases and foci to interrupt transmission

Mass Drug Administration

MDA to reduce transmission of *P. falciparum* in very low to low transmission settings is

recommended

- The effect wanes within 1-3 months
- **Other components of a robust malaria elimination programme should be in place to reduce the risk of resurgence**
- Considered for areas with limited risk of importation.
- Should not divert the resource of other essential components of an elimination programme
- The frequency of rounds and duration of the MDA programme should consider the local malaria epidemiology, the length of the prophylactic period provided by the antimalarial used, and the feasibility and cost of delivering each additional round.

Mass testing and treatment

MTaT to reduce the transmission of malaria is **not recommended**.

- MTaT has a very limited beneficial impact on malaria prevalence and incidence
- Resources required to implement this strategy are considered large.

However, WHO's conditional recommendation against MTaT notes that there may be exceptional circumstances under which MTaT might be appropriate, such as in very low transmission settings where MDA is not an acceptable or feasible strategy.

Mass strategies are generally not recommended for post-elimination settings unless there is a resumption of local transmission of malaria.

Targeted drug administration

Targeted drug administration to reduce transmission of malaria is **recommended**

- Persons given antimalarials should be those with increased risk of infection.
- Factors identifying individuals or groups at increased risk of infection should be easy to recognize.
- *P. vivax*: carefully consider how to safely and feasibly administer treatment to prevent relapses.
- Avoid stigmatizing groups at increased risk of infection.
- Additional complementary strategies to eliminate or prevent re-establishment of malaria transmission should be in place.

Targeted testing and treatment

TTaT to reduce transmission of malaria is **not recommended**

- Likely impact of TTaT on malaria transmission in very low to low or post-elimination settings is trivial
- Challenges with detecting very low parasite densities and a lack of diagnostics for hypnozoites.

*The GDG noted that there may be limited circumstances under which targeted testing and treatment (TTaT) could be beneficial. For example, TTaT could be used when people at a higher risk of infection can be easily identified and chemoprevention is not acceptable to the population. Additionally, TTaT could be used if safe and effective implementation of radical cure to prevent *P. vivax* relapses is only feasible for those with confirmed infections.*

Testing and treatment at points of entry to reduce importation of malaria

Routine malaria testing and treatment at points of entry is **not recommended**

- No studies of the impact of testing and treatment at points of entry on the rate of malaria importation were found, so no direct evidence
- Impact on importation of malaria was likely to be small
- Acceptability and feasibility of testing and treating for malaria at points of entry would be low given the likely disruption to travel.

Malaria testing and treatment of **organized or identifiable groups** arriving or returning from malaria-endemic areas is **recommended**

- Testing and treatment of positive of organized or identifiable groups of people (e.g. military, migrant laborers or religious pilgrims) can help countries nearing elimination or preventing re-establishment by reducing importation.
- Acceptability and feasibility of this strategy is considered higher than routine TaT at points of entry

In post-elimination settings, preventing infections in non-immune residents travelling to malaria-endemic areas through chemoprophylaxis would likely be a more effective approach than treating them upon return.

International travel and health

https://www.who.int/health-topics/travel-and-health#tab=tab_1

Reactive drug administration

Reactive drug administration for reducing malaria transmission is **recommended**

- capacity to conduct case investigations at the residence to determine the likely location of infection and to identify those individuals co-exposed with the index case.
- capacity to enumerate and provide antimalarials to the people residing with or near a confirmed malaria case and others that share the same risk of infection.
- people given antimalarial medicine should share the same risk of having acquired infection as the index case
- if the infection was imported and the residence is not located in a receptive area, there may be no benefit from RDA.

Reactive case detection and treatment

Reactive case detection and treatment to reduce transmission of malaria is **recommended**

- Until an area is nearing elimination or is post-elimination, it is unlikely that RACDT will have any effect on malaria transmission.
- RACDT becomes an essential component of surveillance when countries are nearing interruption of transmission to monitor progress towards elimination.
- When countries are post-elimination and working towards certification, RACDT can strengthen a country's claim that it has reached and maintained zero indigenous cases.
- RACDT is an essential part of surveillance and response to prevent re-establishment of malaria.

Reactive indoor residual spraying

Reactive indoor residual spraying is **recommended**

- Proactive IRS can be substituted by reactive IRS only
- Adding reactive IRS on top of proactive IRS should balance the potential added benefit with increasing cost and the risk of insecticide resistance.
- If no IRS is occurring, initiating reactive IRS may be beneficial.
- If the index infection was imported and the residence is not located in a receptive area, there may be no benefit from reactive IRS.

New recommendations overview

Recommendation	For / Against
MDA to reduce transmission of <i>P. falciparum</i>	For
MTaT to reduce transmission of malaria	Against
TDA to reduce transmission of malaria	For
TTaT to reduce transmission of malaria	Against
Routing malaria testing and treatment at points of entry to reduce importation	Against
MTaT of organized or identifiable groups at points of entry to reduce importation of malaria	For
RDA to reduce malaria transmission	For
RACDT to reduce transmission of malaria	For
Reactive indoor residual spraying to prevent or reduce transmission of malaria	For

How to access WHO malaria guidance



1 WHO Global Malaria Programme website



2 MAGICapp



3 WHO Malaria Toolkit app



Sections

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Conditional recommendation for, Very low certainty evidence

Targeted drug administration to reduce transmission of malaria (2022)

In areas with very low to low transmission or post-elimination settings preventing re-establishment of transmission, antimalarial medicine can be given as chemoprevention to people with increased risk of infection relative to the general population to reduce transmission.

- Persons given antimalarials should be those with increased risk of infection compared to the general population and their infections should constitute a large proportion of the parasite reservoir in the area.
- The factors identifying individuals or groups at increased risk of infection should be easy to recognise, thereby improving the acceptability and feasibility of the intervention.
- Programmes considering implementing targeted drug administration for *P. vivax* should carefully consider how to safely and feasibly administer treatment to prevent relapses.
- Care should be taken to avoid stigmatizing groups at increased risk of infection.
- Additional complementary strategies to eliminate or prevent re-establishment of malaria transmission should be in place.

[Research evidence \(1\)](#) [Evidence to Decision](#) [Justification](#) [Practical info](#) [Decision Aids](#) [More Info](#) [Feedback](#)

Malaria elimination course

The screenshot shows the English version of the course page. The header includes the WHO logo and navigation links. The main title is "Elimination of malaria". Below the title, there is a navigation bar with icons for Learnings, Discussions, Progress, Certificates, Collab Space, Course Details, Documents, and Announcements. The main content area features a large image of two children under a mosquito net. To the right of the image, there is a share button and a description in English: "All malaria programmes at national or subnational level need to be oriented to the activities and dynamic strategies required to achieve interruption of transmission, prevent re-establishment and achieve WHO certification. The curriculum covers all relevant technical areas, including but not limited to malaria parasite biology, immunology and epidemiology; surveillance and response; case management; vector control and entomological surveillance; acceleration strategies; stratification to tailor interventions; and management and planning of an elimination programme." Below the description, there are social media sharing options and a "Enroll me for this course" button.

English

The screenshot shows the Spanish version of the course page. The header includes the WHO logo and navigation links. The main title is "Eliminación de la malaria". Below the title, there is a navigation bar with icons for Learnings, Discussions, Progress, Certificates, Collab Space, Course Details, Documents, and Announcements. The main content area features a large image of two children under a mosquito net. To the right of the image, there is a share button and a description in Spanish: "Todos los programas de lucha contra la malaria a nivel nacional o subnacional deben orientarse hacia las actividades y estrategias dinámicas necesarias para lograr la interrupción de la transmisión, prevenir el restablecimiento y obtener la certificación que otorga la OMS. El plan de estudios abarca todas las esferas técnicas pertinentes, que incluyen, entre otros, la biología del parásito de la malaria, la inmunología y la epidemiología; la vigilancia y la respuesta al manejo de casos; el control de vectores y la vigilancia entomológica; las estrategias de aceleración; la estratificación para adaptar las intervenciones; y la gestión y planificación de un programa de eliminación." Below the description, there are social media sharing options and a "Enroll me for this course" button.

Spanish

The screenshot shows the French version of the course page. The header includes the WHO logo and navigation links. The main title is "Élimination du paludisme". Below the title, there is a navigation bar with icons for Learnings, Discussions, Progress, Certificates, Collab Space, Course Details, Documents, and Announcements. The main content area features a large image of two children under a mosquito net. To the right of the image, there is a share button and a description in French: "Tous les programmes de lutte contre le paludisme au niveau national ou sous-national doivent être orientés vers les activités et les stratégies dynamiques nécessaires pour interrompre la transmission de la maladie, prévenir sa réapparition et obtenir la certification de l'OMS. Ce cours couvre tous les domaines techniques pertinents, y compris, mais sans s'y limiter, la biologie, l'immunologie et l'épidémiologie des plasmodies; la surveillance et la riposte; la prise en charge des cas; la lutte antivectorielle et la surveillance entomologique; les stratégies d'accélération; la stratification pour adapter les interventions; ainsi que la gestion et la planification d'un programme d'élimination." Below the description, there are social media sharing options and a "Enroll me for this course" button.

French

The screenshot shows the Arabic version of the course page. The header includes the WHO logo and navigation links. The main title is "إزالة الملاريا". Below the title, there is a navigation bar with icons for Learnings, Discussions, Progress, Certificates, Collab Space, Course Details, Documents, and Announcements. The main content area features a large image of two children under a mosquito net. To the right of the image, there is a share button and a description in Arabic: "يأتي توجيه جميع برامج مكافحة الملاريا على المستويين الوطني ودون الوطني نحو الأنشطة والاستراتيجيات الدينامية اللازمة لإيقاف انتقال الملاريا، والوقاية من عودتها، وشاهد منظمة الصحة العالمية. ويغطي المنهج جميع المجالات التقنية ذات الصلة، ومنها على سبيل المثال لا الحصر: بيولوجيا طفيليات الملاريا، وعلم المناعة، والخصائص الوبائية، والترصد والاستجابة، والتدبير العلاجي للحالات، ومكافحة النواقل وترشد المضرب، واستراتيجيات تسريع التوعية والتقسيم الطبقي للتدخلات؛ وإدارة برامج التخصيص من الملاريا والتخطيط له." Below the description, there are social media sharing options and a "Enroll me for this course" button.

Arabic

Thank you