The Commonwealth Malaria Report

2021

AFRICAN LEADERS MALARIA ALLIANCE ALMA

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The Commonwealth

malaria NO MORE united kingdom

RBM Partnership To End Malaria

World Health Organization

This report was produced through a collaboration of the **African Leaders Malaria Alliance, the Asia Pacific Leaders Malaria Alliance, Malaria No More UK, the RBM Partnership to End Malaria and the World Health Organization**.

The report authors would like to thank the country governments who supported the provision of case studies.

The report was edited by **Jane Parry** and **Linda Rozmovits** and designed by **Tall Man with Glasses**.

Foreword

Malaria is a shared problem for humankind. As long as it exists anywhere, it threatens health security everywhere. Programmes to fight malaria, especially investments in community health, are a key foundation stone for building stronger pandemic response because of their capacity to detect and treat new diseases.

In 2018, Commonwealth leaders took the historic decision to commit to halving malaria by 2023 at the London Commonwealth Heads of Government Meeting (CHOGM). Fulfilling this commitment will be a vital stepping stone towards the Sustainable Development Goal (SDG) target related to ending malaria.

Now, three years later and over a year into fighting the COVID-19 pandemic, we are perhaps more aware than ever of just how interconnected our health is. Countries burdened with malaria have worked tirelessly to preserve vital programming in the face of the pandemic. Despite this, it is too early to tell the true impact of COVID-19 on our efforts to defeat malaria. Given the number of lives affected by and lost to malaria each year, leaders must be ready to act so that anti-malaria efforts can get back on track. Not only will this prevent an uplift in child mortality, it will ensure Commonwealth members' health systems are strengthened to combat future pandemic diseases.

While the 2015 baseline was chosen to align with the SDG target and the World Health Organization's Global Technical Strategy for Malaria 2016-2030 and is important to measure progress in countries during the commitment period, it may make past progress less visible, especially for countries where there had been recent increases in the malaria burden. Rwanda was one of the countries that faced a resurgence of malaria in 2015. As this came at the very point that targets are measured against, halving malaria has undoubtedly been challenging. Like many countries, even before the disruption of COVID-19, we were facing growing challenges in combating malaria, including the impact of climate change, increasing resistance to insecticides and low levels of funding not aligned with the malaria upsurge.

While analysis in this report shows that countries can be off-track in a given year, progress should also be understood within the wider context of each country's trajectory and its response to challenges. Rwanda's response to resurgence shows that with concerted leadership, progress can happen quickly, making up for lost ground and getting back towards expected targets.

The efforts in the fight against malaria cannot be understood from numbers alone, and this report draws on a series of case studies to highlight how progress is being made. From the use of drones to spray hard-to-reach areas in my country of Rwanda, to innovative multi-stakeholder councils to advocate for and coordinate the elimination of malaria in Zambia, to cross-government approaches for sustaining elimination in Sri Lanka, this report demonstrates the breadth of approaches needed to deliver change.

In June 2021, Rwanda will welcome the Commonwealth to Kigali as we host the 26th CHOGM. Under the theme "Delivering a Common Future", leaders will agree how to deliver a collective recovery from COVID-19. For the first time since 2018, they will hear the progress review of country efforts to halve malaria.

Alongside the meeting of heads of government, the Government of Rwanda will also host The Kigali Summit on Malaria and Neglected Tropical Diseases. The summit will be a vital moment to convene leaders of malaria-endemic and donor states within the Commonwealth, alongside major partners from corporate, philanthropic, scientific, and civil society communities. We will use this moment to support the Commonwealth in getting back on track in the fight against malaria.

Malaria can be defeated. Doing so will take a collective and concerted effort, underpinned by consistent political leadership. As Rwanda prepares to host CHOGM, we are proud to champion the Commonwealth's commitment on malaria as a major contribution to our collective security and prosperity, and call on all member states to consider what they can do to support this vital effort.

The Hon Dr Daniel Ngamije
Minister of Health
Government of Rwanda

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Acronyms and abbreviations

ACT	Artemisinin-based combination therapy
ALMA	African Leaders Malaria Alliance
AMC	Anti Malaria Campaign
APLMA	Asia Pacific Leaders Malaria Alliance
CACH	Commonwealth Advisory Committee on Health
CHOGM	Commonwealth Heads of Government Meeting
DHIS2	District Health Information Software
E8	Elimination 8 initiative
GTS	Global Technical Strategy
IPTp	Intermittent preventive treatment of malaria during pregnancy
IRS	Indoor residual spraying
ITN	Insecticide-treated net
LLIN	Long-lasting insecticidal net
MOU	Memorandum of understanding
PBO	Piperonyl butoxide
PMI	President's Malaria Initiative
RBM	RBM Partnership to End Malaria, formerly Roll Back Malaria
WHO	World Health Organization
WMR	World Malaria Report

Introduction

Malaria, one of humanity's oldest and deadliest diseases, disproportionately impacts the Commonwealth. Home to around one third of the global population, the Commonwealth has more than half of all the malaria deaths and cases recorded each year. Nine out of ten Commonwealth citizens live in a malaria-endemic country.

It was with this knowledge that, in April 2018, all 53 leaders of Commonwealth countries made a commitment to halve malaria by 2023.[1] Coming two days after the London Malaria Summit 2018,[2] which garnered funding and other commitments totalling US$4.1 billion, this was truly an historic moment. It is estimated that achieving this commitment could prevent up to 350 million cases of malaria and save as many as 650,000 lives.

Commonwealth leaders called for progress to be reviewed at the Commonwealth Health Ministers meeting and then reported back at their Commonwealth Heads of Government Meeting (CHOGM).

The emergence of COVID-19 has not only led to the rescheduling of these meetings, it has fundamentally challenged health systems across the Commonwealth and changed the parameters of discussions about our collective health security. Now, more than ever, we are appreciating that a threat in one country is a threat to all. It is against this backdrop that Commonwealth leaders now plan to meet in June 2021.

To support the work of Commonwealth countries pursuing the commitment to halve malaria by 2023, this report details the progress that has been made since 2018. The report draws together the latest data on efforts to defeat malaria, working directly from the *World Malaria Report 2020,*[3] with up-to-date examples of how countries within the Commonwealth have worked to reduce and eliminate malaria. It has been produced by a group of technical and civil society partners including the African Leaders Malaria Alliance (ALMA), the Asia Pacific Leaders Malaria Alliance (APLMA), Malaria No More UK, the RBM Partnership to End Malaria and the World Health Organization (WHO).

The report views country case studies through five focus areas: integration and multisectoral action; financing and sustainability; innovation; data; and regional coordination. These focus areas are drawn from the recently announced Kigali Summit on Malaria and Neglected Tropical Diseases, which the Government of Rwanda will host immediately before the Commonwealth Heads of Government Meeting in June 2021. Combined with CHOGM, the summit is intended to give Commonwealth member states the opportunity to further commit to action in the fight against malaria.

Progress has been made since the historic commitment by Commonwealth countries. By the end of 2019, nearly one third of malaria-endemic countries in the Commonwealth were on track to halve both their case incidence and mortality rate from the disease. Yet, despite individual country progress, collectively, the Commonwealth is currently not on track to meet the commitment to halve malaria by 2023.

During 2020, Commonwealth countries made extraordinary efforts to maintain malaria programmes in the face of the global COVID-19 pandemic. The full impact of COVID-19 on malaria cases and deaths will not be known for some time, but it is likely that the pandemic has led to increased rates of the disease in many parts of the Commonwealth. However, owing to strong country leadership and with support from their malaria partners, the potential doubling of malaria deaths due to the impact of COVID-19 (as highlighted by the WHO in April 2020[4]) has been avoided.

As we reach the halfway point of the Commonwealth commitment, achieving the promise of CHOGM 2018 will require substantial additional progress. The examples included in this report offer inspiration and learnings to support Commonwealth countries in driving forward this progress, which is needed now more than ever.

1. The Commonwealth, *Commonwealth Heads of Government Communiqué: Towards a common future*, 2018, p.7. https://www.chogm2018.org.uk/sites/default/files/CHOGM%202018%20Communique.pdf
2. A full list of commitments is available at https://malariasummit.com/
3. World Health Organisation, *World malaria report 2020: 20 years of global progress and challenges*. Geneva, 2020.
4. World Health Organisation, *The potential impact of health service disruptions on the burden of malaria*, Geneva, 2020.

Analysis of country progress

Background to the reporting

Following the agreement of the Commonwealth commitment at CHOGM 2018, malaria technical experts proposed two indicators to measure the required progress. These were discussed and agreed with members of the Commonwealth Advisory Committee on Health (CACH) at its December 2019 meeting.

To ensure that the Commonwealth commitment did not create additional or inconsistent targets for member states, it was proposed to align the targets with the WHO's Global Technical Strategy (GTS). The GTS underpins the Sustainable Development Goals target related to malaria, already adopted by member states and using 2015 as the baseline year for measuring progress. On this basis, the CACH instructed the Commonwealth Secretariat to work with technical experts, including the WHO, to produce reporting based on these indicators.

The two indicators to measure progress towards the commitment apply both to the Commonwealth as an aggregate and to any Commonwealth country with cases or deaths from malaria in 2015. These are:

1. On track to reduce malaria incidence by 50% by 2023
2. On track to reduce malaria mortality rates by 50% by 2023[5]

These indicators are measured using the WHO's estimates available in the latest annual *World Malaria Report 2020*. Given the significant range of countries within the Commonwealth, the use of a standardised reporting method for measuring progress was vital to delivering this report. The WHO's estimates are consistent across all countries in the Commonwealth and enable member states to review progress towards the halving commitment without requiring any additional data reporting by individual countries.[6]

This report uses data from the *World Malaria Report 2020* to produce three data tables and two graphs to inform discussion for Commonwealth nations ahead of CHOGM, and for the 2021 meetings of the CACH and Commonwealth Health Ministers. All data are from WHO estimates for the year 2019.

5. This country-by-country projection was undertaken by WHO using existing reported and estimated data from countries and applying a linear projection of the decreases required to achieve the 2023 halving target. WHO use the same methodology which is being used to track progress towards the 2016-2030 WHO Global Technical Strategy milestones.
6. Methodology for WHO process to estimate case and deaths can be found in the *World Malaria Report 2020, Geneva.* https://www.who.int/publications/i/item/9789240015791

Latest progress

By the end of 2019, Commonwealth countries that had malaria cases or deaths in 2015 had achieved the following progress towards the commitment.

Many countries are on track to reach the commitment.

- Almost one third of Commonwealth malaria-endemic countries were then on track to halve both malaria case incidence and mortality rates by 2023. These countries were Bangladesh, Belize, Botswana, India, Malaysia, Namibia, Pakistan, and South Africa.

Good progress is being made on reducing mortality, including in countries with higher burdens and rates of malaria.

- Mortality rates fell across most of the Commonwealth. Eight countries had already achieved the target to reduce their mortality rate by half of their 2015 levels. These countries were Bangladesh, Belize, Botswana, Eswatini, India, Malaysia, Namibia, and Vanuatu.
- There was notable progress in some of the highest burden and most malaria-endemic countries, with several in touching distance of the progress rates required.
- Nigeria has made significant progress and was very close to the progress required to be on track. In 2015, Nigeria's mortality rate was 62/100,000. By 2019, it had reduced this to 48/100,000 and was 47% of the way to the target of halving malaria by 2023.
- Sierra Leone was equally close to the progress rate required to halve malaria by 2023. In 2015, it had the highest malaria mortality rate in the Commonwealth at 115/100,000. By 2019, the mortality rate had decreased to 88/100,000 which was 48% of the way to the target of halving malaria by 2023.
- Both Mozambique and Cameroon were also close to the progress rate required to be on track in 2019.

Progress on cases is mixed.

- Case incidence rates decreased across most Commonwealth countries. While progress was strong in some parts of the Commonwealth, it was slow in others, and several countries have seen resurgent case levels. While many increases in the case incidence rate were in countries with small populations, this also included Nigeria which continues to have the largest case burden in the Commonwealth.
- Seven countries had already achieved the target to reduce their case incidence rate by at least half of their 2015 levels. These countries were Bangladesh, Belize, Botswana, The Gambia, India, Malaysia, and Namibia.
- Malaysia reached zero cases for the second consecutive year. Belize reached zero cases for the first time.
- Ghana, Pakistan, South Africa, and Zambia were all on track to halve their case incidence rate by 2023.
- United Republic of Tanzania was also very close to the progress levels required. It reduced its case rate incidence from 142/1000 in 2015, to 111/1000 in 2019, which was 43% of the way to the target of halving malaria by 2023.

Notable progress has been made by countries facing resurgent case levels.

- The use of 2015 as the baseline year for the commitment means that countries facing resurgences around that time were quickly off track despite impressive progress before the resurgence.
- Rwanda saw a resurgence in malaria cases in the initial years of the commitment period. Progress since the commitment was agreed in 2018 has been significant. Between 2017 and 2019, the case incidence in the country nearly halved, from 724/1,000 back down to 366/1,000. If this progress is maintained as is expected thanks to planned programming, Rwanda is likely to be back on track in the next reporting year.
- For smaller countries that are close to elimination, such as Eswatini or Vanuatu, sudden changes in case incidence are magnified by their low case levels. Both countries have made significant progress in reversing the trend following spikes in case incidence in 2017.

The Commonwealth as a whole needs to accelerate progress, particularly on cases.

- Despite progress in many member countries, and significant reductions in the mortality rate even in countries with the highest burdens, the Commonwealth, as an aggregate of nations, is currently not on track to reach the commitment of halving malaria case incidence and mortality rates by 2023.
- Over two thirds of the malaria cases, and half of the deaths, occurred in just four countries: Mozambique, Nigeria, United Republic of Tanzania, and Uganda. Given the size of these countries' malaria burdens, they will be vital to the overall achievement of the Commonwealth commitment.
- These countries are all part of the "high burden to high impact" country-led approach supported by the WHO and the RBM Partnership to End Malaria. This will be a vital initiative for the Commonwealth to support in accelerating progress and helping countries get back on track.

Country data

Table 1: Summary status for malaria incidence and mortality rate indicators by country

This table outlines whether countries are “on track” or “not on track” to achieve the Commonwealth commitment. Countries are shown to be on track where they have:

- Reduced the malaria case incidence rate (per 1,000 of population at risk) to a level equal to, or greater than, the linear projection required to reach halving by 2023 (against a 2015 baseline).
- Reduced the malaria mortality rate (per 100,000 of population at risk) to a level equal to, or greater than, the linear projection required to reach halving by 2023 (against a 2015 baseline).

The table also shows the extent of country progress in 2019. Countries are shown to be in one of three states:

- **Green:** Progress is equal to, or greater than, the projected level required to be on track in 2019.
- **Amber:** The country has achieved 75% to 99% of the progress required to be on track in 2019.
- **Red:** The country has achieved less than 75% of the progress required to be on track in 2019.

Table 2: Malaria cases and case incidence by year for 2019

This table shows the population at risk, the number of cases and the incidence rate (defined as cases per 1,000 individuals at risk) for each country in 2019. It also shows the case incidence rate required to be on track to meet the Commonwealth commitment.

Table 3: Malaria deaths and mortality rate by year for 2019

This table shows the population at risk, the number of deaths and the mortality rate (defined as deaths per 100,000 individuals at risk) for each country in 2019. It also shows the mortality rate required to be on track to meet the Commonwealth commitment.

Table 1: Summary status for malaria incidence and mortality rate indicators by country

Green: On track or better
Amber: Near to being on track
Red: Currently not on track

Country	Year	On track to accomplish Commonwealth case incidence target	On track to accomplish Commonwealth mortality rate target
Bangladesh	2019	Yes	Yes
Belize	2019	Yes	Yes
Botswana	2019	Yes	Yes
Cameroon	2019	No	No
Eswatini	2019	No	Yes
Gambia	2019	Yes	No
Ghana	2019	Yes	No
Guyana	2019	No	No
India	2019	Yes	Yes
Kenya	2019	No	No
Malawi	2019	No	No
Malaysia	2019	Yes	Yes
Mozambique	2019	No	No
Namibia	2019	Yes	Yes
Nigeria	2019	No	No
Pakistan	2019	Yes	Yes
Papua New Guinea	2019	No	No
Rwanda	2019	No	No
Sierra Leone	2019	No	No
Solomon Islands	2019	No	No
South Africa	2019	Yes	Yes
Uganda	2019	No	No
United Republic of Tanzania	2019	No	No
Vanuatu	2019	No	Yes
Zambia	2019	Yes	No
Commonwealth (total)	**2019**	No	No

Table 2: Malaria cases and incidence rate by year for 2019

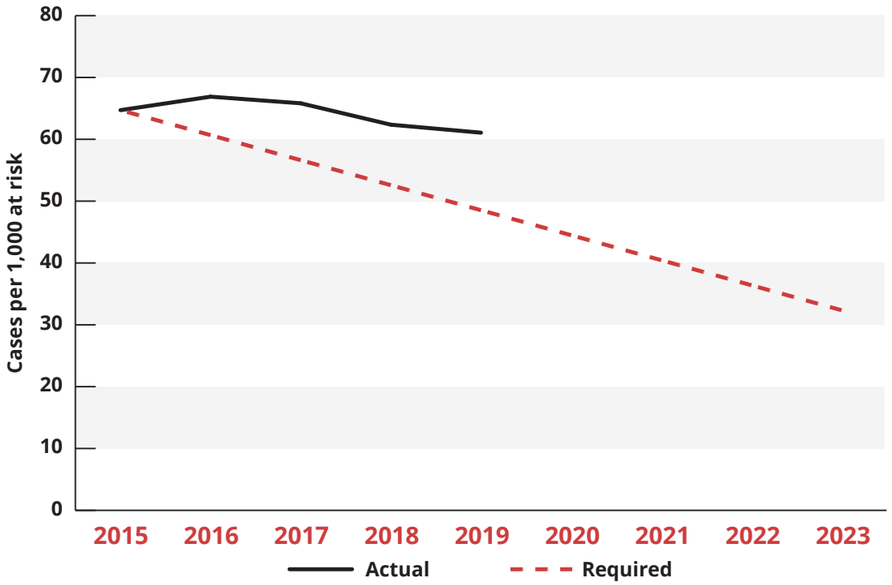
Country	Year	Population at risk	Cases	2019 incidence rate	Incidence rate required in 2019 to be on track for the 2023 CW target (≤)
Bangladesh	2019	17,532,354	21,146	1.21	2.07
Belize	2019	269,342	0	0.00	0.03
Botswana	2019	1,527,309	257	0.17	0.28
Cameroon	2019	25,876,387	6,291,256	243.13	185.99
Eswatini	2019	321,477	239	0.74	0.38
Gambia	2019	2,347,696	118,614	50.52	159.06
Ghana	2019	30,417,858	4,911,921	161.48	206.87
Guyana	2019	782,775	26,403	33.73	17.62
India	2019	1,276,780,904	5,550,845	4.35	7.27
Kenya	2019	52,573,968	2,999,160	57.05	49.47
Malawi	2019	18,628,749	3,868,722	207.67	165.13
Malaysia	2019	1,277,991	0	0.00	0.15
Mozambique	2019	30,366,043	9,364,806	308.40	258.65
Namibia	2019	1,980,028	5,618	2.84	8.16
Nigeria	2019	200,963,608	60,959,012	303.33	217.55
Pakistan	2019	212,907,531	707,396	3.32	3.80
Papua New Guinea	2019	8,776,119	1,372,189	156.35	89.13
Rwanda	2019	12,626,938	4,622,960	366.12	254.35
Sierra Leone	2019	7,813,207	2,615,850	334.80	298.32
Solomon Islands	2019	663,122	164,358	247.85	50.14
South Africa	2019	5,855,826	3,096	0.53	0.59
Uganda	2019	44,269,584	11,629,246	262.69	190.14
United Republic of Tanzania	2019	58,005,458	6,453,096	111.25	106.33
Vanuatu	2019	299,882	1,047	3.49	2.18
Zambia	2019	17,861,034	2,637,628	147.67	165.00
Commonwealth (total)	**2019**	2,035,629,648	124,324,865	61.07	48.53

Table 3: Malaria deaths and mortality rate by year for 2019

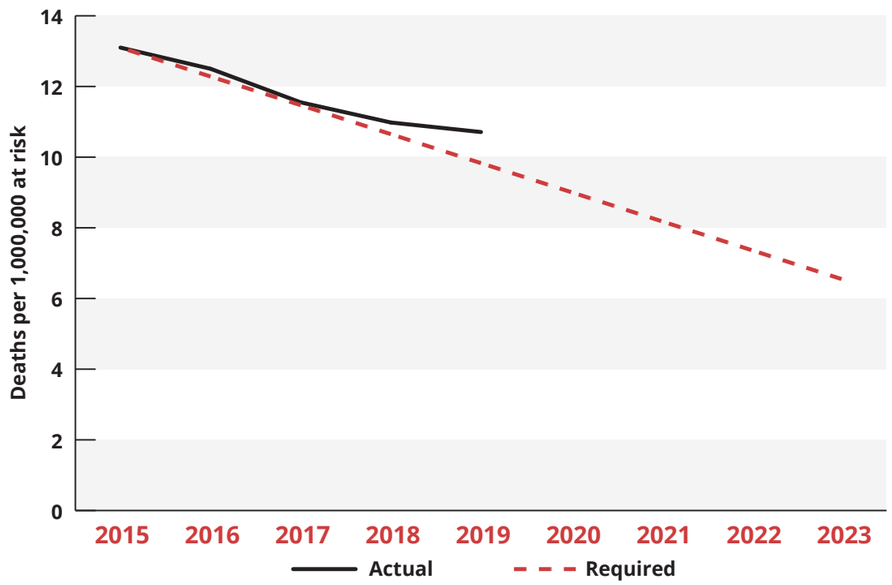
Country	Year	Population at risk	Deaths	2019 mortality rate	Mortality rate required in 2019 to be on track for the 2023 CW target (≤)
Bangladesh	2019	17,532,354	47	0.27	0.50
Belize	2019	269,342	0	0.00	0.00
Botswana	2019	1,527,309	0	0.00	0.05
Cameroon	2019	25,876,387	11, 278	43.58	40.65
Eswatini	2019	321,477	0	0.00	0
Gambia	2019	2,347,696	677	28.84	22.94
Ghana	2019	30,417,858	11, 206	36.84	31.67
Guyana	2019	782,775	30	3.83	2.15
India	2019	1,276,780,904	7, 705	0.60	1.33
Kenya	2019	52,573,968	12, 703	24.16	19.36
Malawi	2019	18,628,749	6, 333	34.00	29.78
Malaysia	2019	1,277,991	0	0.00	0.25
Mozambique	2019	30,366,043	15, 032	49.50	45.02
Namibia	2019	1,980,028	14	0.71	2.08
Nigeria	2019	200,963,608	95, 802	47.67	46.74
Pakistan	2019	212,907,531	587	0.28	0.30
Papua New Guinea	2019	8,776,119	2, 745	31.28	18.61
Rwanda	2019	12,626,938	3, 311	26.22	20.60
Sierra Leone	2019	7,813,207	6, 852	87.70	86.27
Solomon Islands	2019	663,122	186	28.05	7.16
South Africa	2019	5,855,826	79	1.35	1.49
Uganda	2019	44,269,584	13, 631	30.79	25.80
United Republic of Tanzania	2019	58,005,458	21, 846	37.66	29.84
Vanuatu	2019	299,882	0	0.00	0.00
Zambia	2019	17,861,034	7, 914	44.31	35.78
Commonwealth (total)	**2019**	2,035,629,648	217, 978	10.71	9.83

Progress graphs

Actual vs required progress to meet the case incidence rate target across the Commonwealth



Actual vs required progress to meet the mortality rate target across the Commonwealth



Country progress case studies

Introduction

Nearly half of the countries in the Commonwealth were malaria endemic in 2015, the baseline year for the Commonwealth's commitment to halve malaria. The severity of the disease differs greatly within these countries. From Malaysia, where it is on the brink of elimination, to Nigeria, with more than half of the Commonwealth's cases, each country faces unique challenges.

The numerical analysis of the data in the previous section can tell us much about the trajectory of a country's progress. However, it does not account for the efforts made towards achieving the commitments featured at the London Malaria Summit or the work undertaken to continue malaria programming in the face of COVID-19.

This section draws out the experiences of countries in their ongoing efforts to fight malaria. It is broken into five focus areas. These make up the building blocks of a successful strategy to reduce and eventually eliminate malaria. They will also be the pillars of the Kigali Summit on Malaria and Neglected Tropical Diseases to be hosted by the Government of Rwanda preceding CHOGM 2021.

Integration and multisectoral action - Focusing on how malaria programming can be integrated within the health system, as well as coordinated with broader multisectoral approaches, to ensure efforts are maximized.

Resource mobilization and sustainability - Examining how a strong focus on domestic resource mobilization, as well as engagement of the private sector and bilateral and multilateral donors, can deliver progress, with a view to sustaining gains at the point of elimination.

Innovation - Looking at examples of innovation, with a particular focus on how countries used innovative methods to adapt to the threat of COVID-19.

Data - Understanding how developments in the use of malaria programming data have supported decision-making by Commonwealth countries.

Regional coordination - Showcasing how coordination among and within countries has supported effective programming, especially in the face of shortages created by COVID-19.

Integration and multisectoral action

Malaria is a serious public health threat that warrants dedicated programmes in many countries. To maximise the impact of these programmes, they need to be successfully integrated into the broader health system. Moreover, malaria has an impact far beyond the health sector, and a multisectoral approach is needed to achieve elimination.

Multisectoral action

Zambia's End Malaria Council and Fund were launched by President Edgar Lungu in March 2019 and aims to keep malaria high on the national agenda, support implementation of the national strategic plan to end malaria, mobilize resources and monitor progress towards the country's malaria elimination goals. The End Malaria Council and Fund convene senior leaders across all sectors (i.e., public, private and civil society), to accelerate malaria control and elimination. Members make commitments on behalf of their respective sectors and hold each other accountable for fulfilling commitments.

Within the health sector, the End Malaria Council addressed the problem of stock-outs which were impeding the country's preventive treatment of pregnant women. As a result of the Council's engagement, the programme was restored nationwide.

Other public health aspects of ending malaria have been addressed through multisectoral efforts. For example, gaps in distribution of insecticide were addressed by collaboration between traditional leadership and leading private sector companies, such as First Quantum Minerals Limited.

The End Malaria Council took, as its starting point, the fact that malaria undermines economic growth and, consequently, reduces tax revenues. The Zambia Revenue Authority was engaged, together with other partners, to broadcast public education on the threat of malaria and how to differentiate between the symptoms of malaria and COVID-19.

Photo source: Anglican Church in Episcopal News Service. 8 July 2019. Zambia joins Zambia's End Malaria Council in Encouraging Leadership on Malaria. https://www.episcopalnewsservice.org/pressreleases/anglican-church-in-zambia-joins-zambias-end-malaria-council-in-encouraging-leadership-on-malaria/

Faith-based organizations have also helped Zambia raise the visibility of malaria since, as trusted advisors, religious leaders have unique access to communities and are influential nationwide. Religious leaders from the End Malaria Council have launched the Faith Leader Advocacy for Malaria Elimination initiative, to organize a movement of clergy across all faiths, to speak out about malaria. The Council has also engaged directly with members of parliament to sensitize them to the importance of ending malaria, and works actively with the private sector and national trade organizations, to galvanize large-scale investments and other commitments in the fight against malaria.

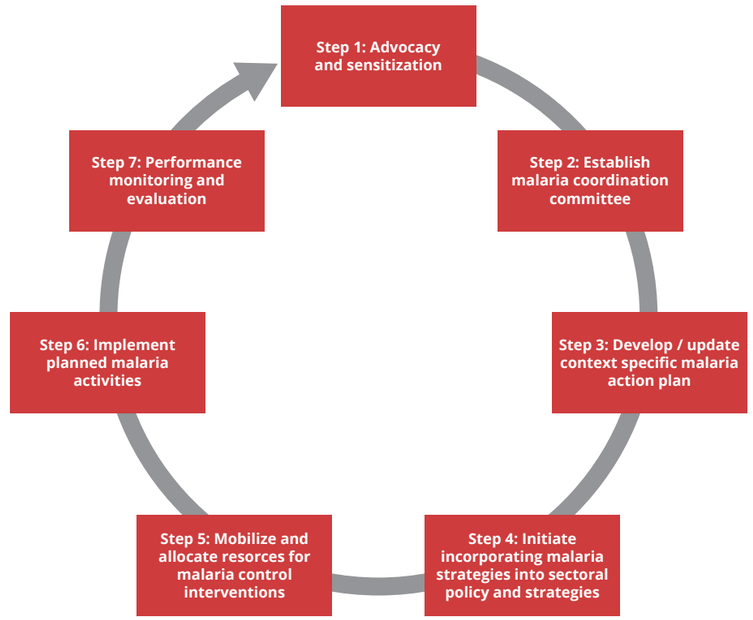
Becoming malaria-smart

In April 2018, the Government of Uganda launched its Mass Action Against Malaria Initiative, calling upon all ministries, departments and agencies to take responsibility for eliminating the disease burden in the country.

In 2019, the Ugandan Treasury issued a Budget Call Circular requiring sectors, beyond health, to mainstream malaria in their budgets for 2020/21 and beyond. In response, the health ministry has partnered with the private sector and Rotarians to set up the Malaria Free Uganda initiative, which aims to raise funds to ensure the sustainability of the malaria response. The private sector also plays an important role in supporting the continuity of malaria elimination efforts.

In early 2020, the government issued further guidelines in order to support all ministries in their efforts. The guide spells out seven steps to becoming a 'malaria-smart sector' (Figure 1).

Figure 1.
Steps to becoming a 'malaria-smart sector' in Uganda



Resource mobilization and sustainability

Domestic resource mobilization and engagement of the private sector, as well as the ongoing support of bilateral and multilateral donors, all have a part to play in generating the funds to end malaria. And as countries reach the point of elimination, ensuring a continued focus on the sustained, country-owned resourcing of malaria programs and surveillance is critical.

Bridging funding gaps

While Nigeria has made progress in bringing down malaria prevalence since 2000, funding gaps continue to present major challenges. The country has been successful in securing external resources, with support from the Global Fund to Fight AIDS, Tuberculosis and Malaria directed at 13 states, and another 11 states supported by funding from the US President's Malaria Initiative (PMI). However, 13 states were without external funding and suffered shortfalls in the malaria response, including for mosquito net distribution. At the 2018 Commonwealth Heads of Government Meeting London Malaria Summit, Nigeria committed to addressing this problem. In 2020, the country successfully secured US$200 million in development loans from the World Bank, as part of a multiphase primary health care loan, and US$100 million from the Islamic Development Bank, specifically earmarked for malaria programmes.

This funding will enable Nigeria to provide malaria prevention to over 50 million people, including long-lasting insecticidal nets (LLINs) through universal coverage campaigns, artemisinin-based combination therapies (ACTs) and rapid diagnostic tests for case management. While the WHO recommends that LLIN campaigns take place every three years, some states have not had mass campaigns in recent years, and five states have not had LLINs distributed at scale since 2011. These states are now fully financed to carry out their campaigns in 2021.

The World Bank multiphasic loan will also help ensure Nigeria has a significantly stronger primary health care delivery system. Financing malaria (and immunization) as the first leg of this effort, will create a quick win, reducing the burden on the health system while demonstrating health gains for children. In addition to filling the funding gap for previously unsupported states, the loans also ensure that Nigeria will meet its commitment to the Global Fund for co-financing. Without this, the country would have been at risk of losing US$125 million from the Global Fund malaria allocation.

L-R: the prime ministers of the Solomon Islands, Papua New Guinea, and the Republic of Vanuatu, accompanied by the Australian Minister for International Development and the Pacific attend the London Malaria Summit, 18 April 2018.

Box 1 - The private sector helps fill the funding gap

In Zambia, the End Malaria Council has augmented its large-scale capital campaign to close the budget gap with high-profile events involving the private sector, including fundraising events, publicity, donation boxes in airports and branded merchandise promoting malaria elimination. US$500,000 was secured to support malaria campaigns in 2020.

The World Bank and Islamic Development Bank loans, coupled with the 33% increase in resources from the Global Fund and continued support from the United States and United Kingdom governments, means that, over the next three years, Nigeria has the potential to make very significant in-roads into tackling the burden of malaria.

Sustaining malaria-free status in the COVID-19 era

Sri Lanka stands as a beacon for malaria elimination, having been declared malaria free by the WHO in 2016. Since then, there have been no indigenous cases, and its malaria programme has focused on ensuring that the disease is not reintroduced into the country.

In 2019, there were 53 imported cases and, between February and October 2020, only 23 imported cases. The success of the elimination programme can largely be attributed to political will and commitment at the highest level, rapid testing and detection of cases, case investigation, strong entomological and parasitological surveillance, vector control measures, and adequate funding. It is also due to the fact that Sri Lanka takes a whole-of-government approach to staying malaria free, with strong intersectoral collaboration both within the health system and with other agencies.

The Anti Malaria Campaign (AMC) of Sri Lanka is fully integrated within the health ministry to ensure that resources, both financial and human, are sustained to prevent the re-establishment of malaria through imported cases. The AMC is supported by a standing technical support group of 17 experts guiding and adapting the malaria response.

As a result of this sustained focus on surveillance, Sri Lanka was particularly responsive and well-placed to integrate its COVID-19 response with existing health services. Sri Lanka successfully incorporated COVID-19 screening into its existing malaria prevention measures by screening for both malaria and COVID-19 at ports of entry. Despite the impact of the pandemic, with only 23 imported malaria cases between February and October 2020, Sri Lanka is a prime example of what can be achieved through cross-sectoral collaboration between ministries of health, the interior and defence, and transport authorities.

Innovation

Innovation has the power to accelerate programmes against malaria and to ensure that limited resources are utilized to maximum effect. To make a tangible difference, innovation needs to be integrated into practice and programming. This has been especially true in the response to the challenges of COVID-19. These have required countries to innovate extensively, particularly in programme delivery.

Rising to the challenge of COVID-19

The need for innovation has become even more pressing since the emergence of COVID-19 as the pandemic has threatened to take global malaria mortality levels back to those of 2000. Modelling from the WHO and partners showed that malaria deaths could double in Africa due to disruption of prevention and treatment programmes, diverted resources and overwhelmed health systems. In response, from early 2020, there were herculean efforts at the global, regional and national levels to keep malaria programmes on track. At the national level, this required innovative thinking.

In Uganda, malaria prevention through the mass distribution of LLINs, conducted every three years, is a key strategy that has contributed significantly to the reduction in malaria prevalence over the last decade. The LLIN mass campaign was scheduled to start in April 2020 and deliver over 27 million LLINs. With the onset of the COVID-19 pandemic, the campaign was halted as a national lockdown was implemented. The National Malaria Control Division and its partners resolved to ensure malaria interventions were maintained and considered as essential services in order to prevent the projected increase in deaths and cases should malaria prevention activities not proceed.

Preventive residual spraying amid movement control order in Malaysia.

Source: Ministry of Health, Malaysia

To avoid mass gatherings, the Uganda campaign pivoted to door-to-door distribution rather than the usual fixed-point strategy. In previous LLIN distribution campaigns, village health teams would first conduct household mapping and registration over approximately three days, compile the registration data and subsequently return to distribute the LLINs. To reduce interactions with the communities, and hence reduce the risk of COVID-19 infection, household registration and LLIN distribution was conducted simultaneously, and the distribution exercise per wave lasted only five days. As a result of these changes, as well as intensive efforts to provide adequate personal protective equipment for the village health teams, the campaign was initiated with only a two-month delay. Multiple waves of delivery took place in 2020, with the final wave of the campaign due in January 2021.

Countries also had to overcome barriers to indoor residual spraying (IRS) implementation due to COVID-19-related restrictions on movement. In Mozambique, spray operator training at the district level entailed the construction of mobile wall units (waterproof wood frames with marine ply sheets) that allowed the sprayers to master the practicalities of insecticide application without entering buildings. Transport arrangements were also changed, reducing the numbers of sprayers per vehicle and using motorcycles or bicycles for last-mile spraying activities. To increase community acceptance and confidence that sprayers were not infected, sprayers from the local community were selected where feasible. This had the side benefit of creating much-needed employment.

Blood film for malaria parasite screening amid movement control order in Malaysia.

Source: Ministry of Health, Malaysia

When COVID-19 hit Malaysia in March 2020, the country had just achieved two years without a single domestic malaria case. Already on high alert for malaria, Malaysia was able to swiftly add COVID-19-specific prevention measures to its malaria elimination activities. For example, it started house-to-house distribution of LLINs to maintain social distancing and avoid community gathering, and added COVID-19 prevention precautions to its standard operating procedures for malaria screening among high-risk groups. It also launched an advocacy and communication campaign on World Malaria Day 2020, to ensure progress against malaria would not be lost due to the pandemic.

Targeted prevention

From 2020, Rwanda has piloted the use of precision drone technology to deploy larvicides, targeting areas of rice cultivation in particular, where malaria has been increasing in recent years. The targeted districts were those where larval source management meets the WHO 3Fs criteria: few, fixed and findable. This innovation supplements LLINs and indoor residual spraying, and has helped optimize Rwanda's insecticide resistance management plan through strategic use of both epidemiological and entomological data.

Specifically, data from monitoring insecticide resistance has enabled better targeting of malaria interventions such as the use of standard Piperonyl Butoxide (PBO)-treated and next-generation nets (Interceptor G2 Nets) and the rotational use of next-generation insecticides for IRS at over 95% coverage. This has been made possible through increased resources from the government and partners including the United States Agency for International Development / PMI and the Global Fund. The country has also increased the government's financial commitment to the IRS campaign, enhancing coverage with next-generation insecticides from five districts in 2017/2018 to 12 districts in 2019/2020. This has contributed to the significant reduction in malaria cases since 2018.

Launch of the Zero Malaria Starts With Me Campaign with the introduction of drones for larviciding, Kigali, Rwanda.

Source: Government of Rwanda

Data

Information is power, and the more countries have data on both the epidemiology of malaria and the entomology of the vector, the more they can use it, strategically, to better target their malaria programmes.

Bottlenecks and shortages

The COVID-19 pandemic presented every country fighting malaria with additional challenges. It interrupted programme delivery and created stock-outs and other disruptions to the commodities supply chain.

Knowing where bottlenecks and shortages are occurring is the first step to addressing them. Working through its Country/Regional Support Partner Committee, the RBM Partnership to End Malaria partnered with the Global Fund, PMI, WHO, ALMA, APLMA and others to create a tracker to help countries identify commodity bottlenecks, upsurges in demand and campaign delays. The Committee has been able to use this data to support countries in overcoming these programme hurdles through, for example, high-level advocacy to country decision makers, support for fast-tracking procurement, and technical assistance to rapidly replan campaigns.

Subnational tailoring of interventions

The 'high burden to high impact' approach is designed to target the 11 countries with the highest burden of malaria, in order to get them back on track with malaria prevention and treatment. This includes the development of nationally governed, integrated malaria data repositories, and the use of data for subnational tailoring of interventions.

In 2019 and 2020, with support from the WHO and partners, Nigeria developed an electronic national malaria data repository, bringing together demographic, epidemiological, intervention, programmatic and survey data at the health facility, community and local authority levels. Built on an interactive DHIS2 platform, data are visualized using maps, charts and tables. All health staff at state and lower levels can access the repository.

The country also developed a new, subnationally-tailored strategy for malaria interventions. Analysis of subnational tailoring of intervention mixes was used to review and refine the goals of the National Malaria Strategic Plan in Nigeria. For example, the analysis recommended the expansion of seasonal malaria chemoprevention from 4 to 21 states, increasing the number of eligible children from about 4 million to 16 million (World Malaria Report 2020).

This exercise also delineated several local government areas that would benefit from PBO LLINs given their high malaria burden and high resistance of mosquitoes to pyrethroid insecticides. Further analysis of the subnational data revealed coverage gaps for intermittent preventive treatment of malaria during pregnancy (IPTp), as well as access to effective malaria diagnosis and treatment. It also showed that care was sought for only 74% of children with fever, and that two thirds of this care was sought in the private sector. Even though malaria diagnosis and treatment are free in the public sector, the data showed that malaria contributes to a high level of catastrophic health expenditure, with 83% of malaria care seeking coming out of pocket. In addition, the data were used to help with costing and prioritization of resources for funding requests to the government and donors.

Risk stratification

Rwanda's National Malaria Control Programme has used epidemiological and entomological data, (e.g. on insecticide resistance), to ensure its insecticide resistance management plan has the maximum possible effect. For example, LLIN distribution is guided by both the epidemiological stratification of districts and entomological monitoring results. As a result, some districts with a high to moderate malaria burden, and confirmed resistance to pyrethroids, received next-generation Interceptor G2 nets. Other districts were targeted with PBO nets, while low to very low malaria-endemic districts, with no or minimal documented pyrethroid resistance, continued to receive standard pyrethroid LLINs.

Data-informed decision making

Increasingly, countries are adopting a data-led action and accountability approach using national scorecards. These use real-time data to better understand where the barriers to malaria control and elimination lie, and identify and track actions to address these bottlenecks.

In Zambia, a review of the national malaria scorecard indicated low coverage nationwide of IPTp, due to commodity stock-outs caused by discontinued donor support and a need to procure the commodity internationally. In Rwanda, scorecard analysis led to the review and adjustment of the list of health facilities included in the health management information system and led to separation of health centres and health posts in the system, to improve monitoring of compliance with screening guidelines. Kenya used the national scorecard to analyse the National Malaria Control Programme and determine a baseline for malaria services that will be used to evaluate the impact of COVID-19. And, in Tanzania, the scorecard was used to reveal an issue with false positive tests that led to increased supervision and mentorship.

Regional coordination

Coordination among countries has supported effective programming, particularly in the face of shortages created by COVID-19. While countries will often face unique challenges in tackling malaria, coordination between neighbouring states can go a long way towards addressing them.

Neighbours work together

Just as COVID-19 hit Namibia, the country was experiencing a resurgence of malaria. Restrictions on movement and reduced transportation made it difficult to deliver malaria commodities, raising the risk of stock-outs of ACTs, in turn threatening increased malaria severity. Health facilities that were completely stocked out were identified and stocks were redistributed internally, but this could only be an interim measure.

This was when the Elimination 8 Initiative (see box 2) came into its own. The WHO helped to identify an emergency supplier of ACTs in South Africa. The E8 then reprogrammed existing regional resources and worked with South Africa's malaria control programme to facilitate the release of the supplies. In addition, the Global Fund, the RBM Partnership to End Malaria's Country/Regional Support Partner Committee, and ALMA worked together to identify a larger supply of ACTs in Uganda that could be delivered to Namibia, providing longer-term stocks. The country reprogrammed its funding to prioritise government financing of these commodities.

These efforts across national borders significantly reduced the time that Namibia was without ACT stocks. E8 partners, including those from the private sector, worked together with the government of Namibia to address the country's perennial problems with timely procurement of other malaria commodities. They helped establish a commodity tracking system to identify and address bottlenecks, and to secure donor funding for airfreight of insecticide to ensure timely delivery despite the delay created by COVID-19 lockdown measures. The support provided by the E8 partners in the tracking, procuring and shipping of malaria commodities has helped Namibia carry out indoor residual spraying on schedule despite the COVID-19 pandemic.

Cross-border collaboration in action

In 2019, The Gambia and Senegal signed a memorandum of understanding (MOU) to strengthen collaboration and coordination of cross-border malaria activities. This MOU established a platform for coordinated and synchronized planning, implementation, and supervision of LLIN distribution so that populations living on either side of the border received nets at the same time. At the peak of the COVID-19 outbreak in July 2020, The Gambia faced a potential stock-out of rapid diagnostic tests for malaria. Thanks to the MOU, staff at the national malaria control programme were better able to reach out to their colleagues in Senegal for a loan of 15,000 tests, ensuring continuity of the testing programme.

Box 2 - The Elimination 8 Initiative

The Elimination 8 Initiative (E8) is the malaria response arm of the Southern African Development Community. A cross border-coalition of southern African nations (Angola, Botswana, Eswatini, Namibia, South Africa, Zambia and Zimbabwe), it works to eliminate malaria in the region by 2030. E8 is pioneering an approach based on key principles and areas of focus:

- Accountability acknowledges that the actions and decisions of one country will affect the region as a whole.
- Advocacy at the ministerial level is needed to elevate malaria as a national and regional priority, and to optimize use of resources, data sharing and technological innovations.
- Mobile and migrant populations require special attention to address the risk of cross-border malaria transmission.
- Monitoring and surveillance require a harmonized approach that allows E8 members to effectively share information on patterns of transmission beyond their individual borders.

Elimination 8 Initiative, Namibian Health Minister Kalumbi Shangula receives 10,000 units of malaria artemisinin-based combination therapy from Dr. Richard Nchabi Kamwi.

Source: E8 Malaria. https://twitter.com/E8_Malaria/status/1271032822812348418

Conclusion

Since 2018's historic agreement by Commonwealth leaders to halve malaria within five years, member countries have worked hard to deliver on this commitment.

As this report has shown, despite the onset of COVID-19, Commonwealth nations and their partners have successfully continued to deploy and resource malaria control and elimination programmes. From Malaysia to Zambia, the report demonstrates that Commonwealth countries continue to make progress in the most uncertain of times and have delivered against the odds.

However, even with the innovation and ingenuity shown in this report, the Commonwealth as a whole is still not currently on track to halve both the case incidence and mortality rates by 2023. And while national malaria programmes have achieved much in maintaining their programmes in the face of COVID-19, it will be some time before the full extent of the pandemic's impact on cases and deaths is known.

2021 will be an uncertain year. What is certain is that June's CHOGM will be a significant moment for Commonwealth leaders to discuss the slow process of rebuilding following the pandemic. Ensuring greater health security for all countries, and the Commonwealth as a collective, will be an important part of this process.

Investments in malaria programming should not be viewed as standalone initiatives. They must be seen as critical components of the Commonwealth's approach to health security, which has been sorely tested by the pandemic. Malaria thrives where there are gaps in basic health services, and the resulting fever cases mask outbreaks of other illnesses. This not only puts a huge strain on the underfunded health systems of malaria-endemic countries, it also threatens the Commonwealth's collective health security by allowing potential future pandemic diseases to spread undetected.

Health security across the Commonwealth is reliant on robust and cost-effective programmes for responding to malaria. For example, by investing in community health workers as the first line of defence against malaria, the capacity to detect new diseases is increased. Investment in the pillars described in this report, from cross-border co-operation, to strengthening community health systems in order to improve disease surveillance and response, will be vital to advancing universal health coverage and achieving a more health-secure Commonwealth.

To capitalize on CHOGM 2021, the Government of Rwanda will host the Kigali Summit on Malaria and Neglected Tropical Diseases on June 24, 2021. The event will bring together leaders of malaria-endemic countries and donor counterparts, as well as major partners from corporate, philanthropic, scientific and civil society communities. Following on from the London Summit in 2018, it will be the next major moment for addressing collective endeavours to end malaria.

Commonwealth leaders can seize the opportunity of both the upcoming CHOGM and the Kigali Summit to achieve the dual purposes of getting states back on track in the fight against malaria, and improving their countries' collective health security. Leaders can also signal the importance of this through a renewed commitment to the Commonwealth's pledge of halving malaria by 2023, backed up with commitments at the Kigali Summit which draw on the lessons described in this report.

Mobilizing resources to fund and deliver malaria programmes

Even before the COVID-19 crisis, funding for malaria programmes had begun to stall. The global pandemic has further undermined the availability of both domestic and international financing. It is imperative that a greater focus is placed on re-energizing resource mobilization, as well as incorporating the lessons from countries that are engaging multisectoral actors through national End Malaria Funds.

Engaging leadership at all levels and sectors

To achieve the Commonwealth commitment, it will be vital to develop and continue the delivery of ambitious plans to ensure progress against malaria. These plans require commitment from across the ministries responsible for their deployment, backed by consistent political leadership, and engaging actors outside of government through initiatives such as the End Malaria Councils.

2020 saw multiple country leaders step up and take decisive action to ensure malaria programming was not deprioritized during the early months of the COVID-19 pandemic. The upcoming CHOGM and Kigali Summit provide a significant opportunity to continue the prioritization of malaria at the highest level.

Investing in data and surveillance to improve decision-making

Decision-making can be substantially aided using data-led approaches. From improving subnational targeting strategies to rapidly addressing stock-outs and commodity shortages, the examples in this report demonstrate why investments in data should be at the heart of strategies to control and eliminate malaria.

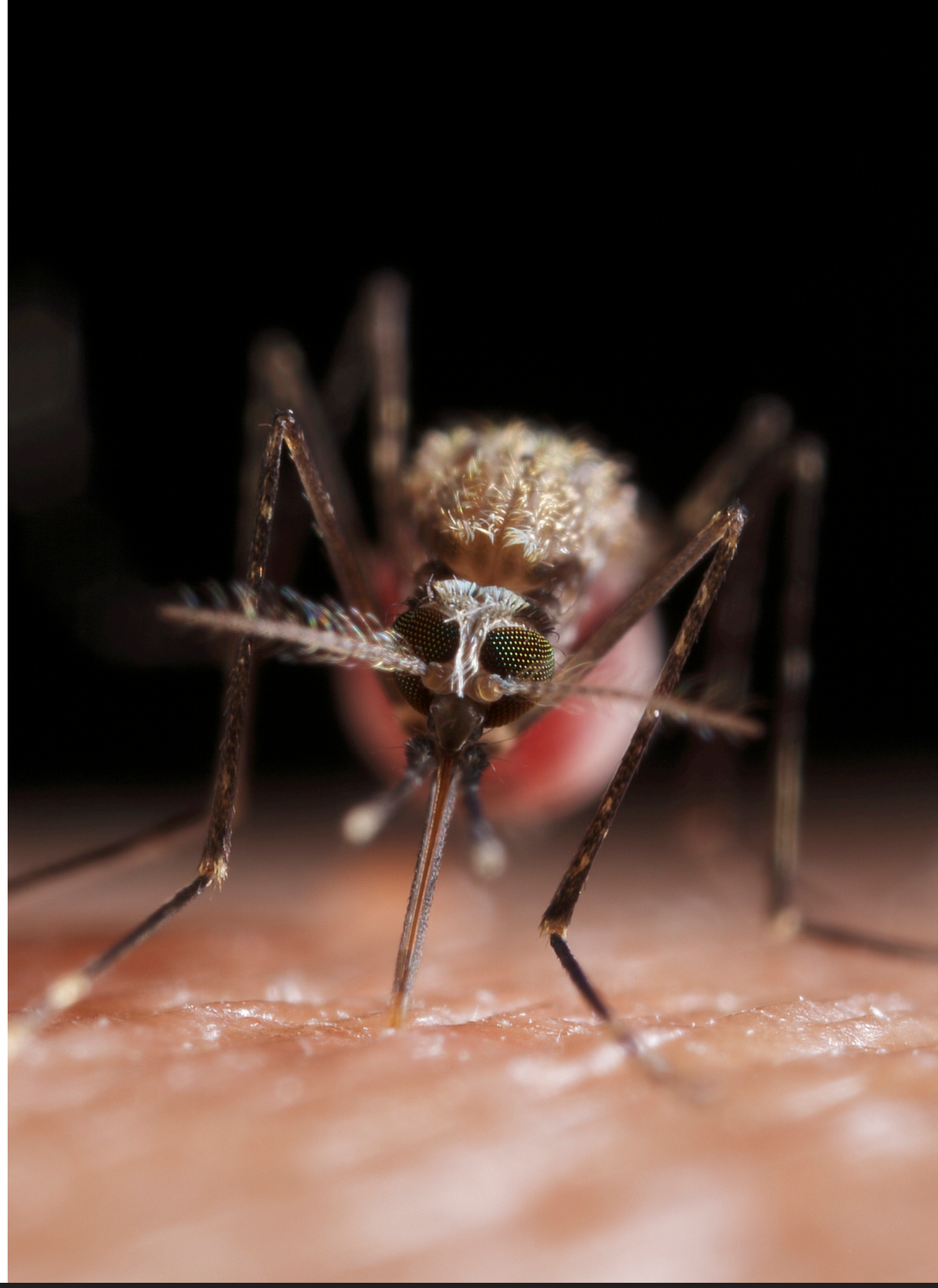
Keeping innovation at the forefront of malaria programming

Countries and partners developed innovative solutions with great speed and agility to ensure continued programme delivery during the COVID-19 pandemic. As more countries reach the last mile of elimination, fostering and further embedding this culture of innovation will be vital.

Fostering greater regional cooperation

The E8's role in ensuring the continuity of malaria programmes in the face of COVID-19 is a prime example of effective regional cooperation. Greater cooperation and coordination at all levels will be vital to achieving the commitment. This can be furthered through systematizing the role of Commonwealth forums, such as the annual Commonwealth Health Ministers Meeting, to discuss country progress in depth.

The CHOGM 2018 commitment to halve malaria across the Commonwealth was a bold statement by leaders. Once achieved, it will not only prevent malaria cases and save lives, it will significantly improve the health security of all member states. At the midpoint of the commitment, an acceleration of progress is urgently needed to achieve that promise. CHOGM 2021 and the Kigali Summit on Malaria and Neglected Tropical Diseases now represent the next clear opportunity for leaders to revitalise their pledge, and to ensure that the Commonwealth as a whole gets back on track to meet the historic commitment.

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ALMA

ASIA PACIFIC LEADERS
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ASIA PACIFIC MALARIA
ELIMINATION NETWORK

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RBM Partnership
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World Health
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