Malaria in Africa:
Progress, Danger signs, Catching up

Sub-regional Malaria Program Managers Meeting in Africa

RBM /CRSPC

November 2020

World Health Organization
REGIONAL OFFICE FOR Africa

Outline

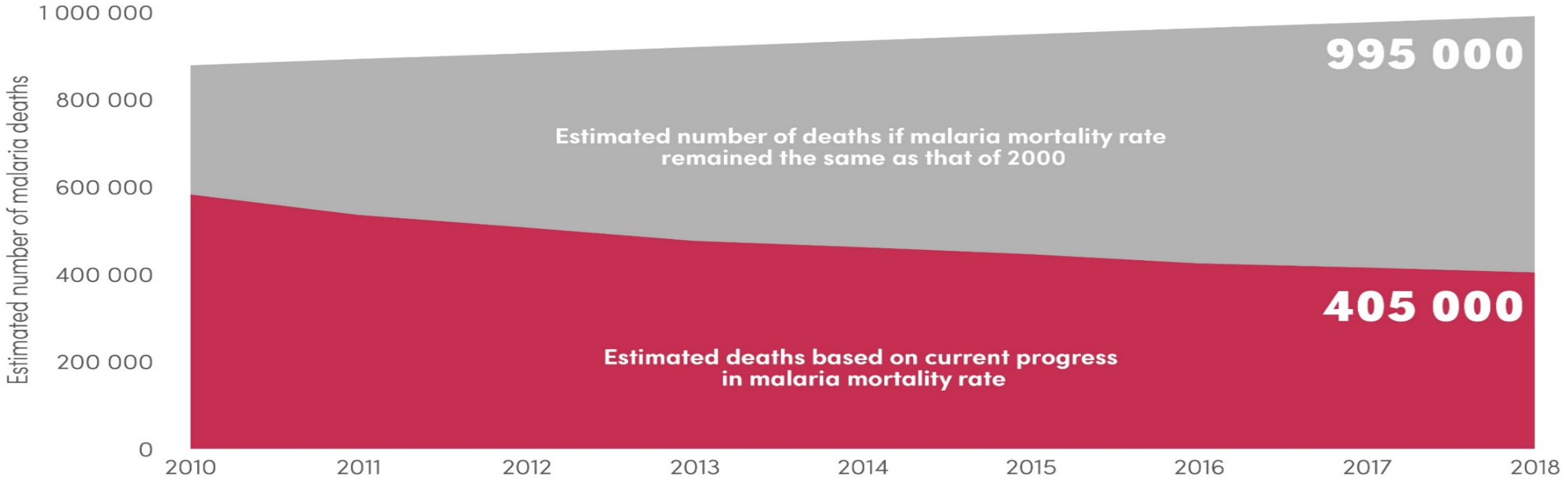
- Progress in malaria control and elimination
- Danger signs of stagnation or reversal of gains – Need to work differently
- Catching up – Getting back on track
- List of technical guidelines

Progress

Great strides – 590,000 malaria deaths everted, 2000-2018

FIG. 2.8.

Comparison of current estimated malaria deaths with expected deaths had malaria incidence remained at 2000 levels globally *Source: WHO estimates.*

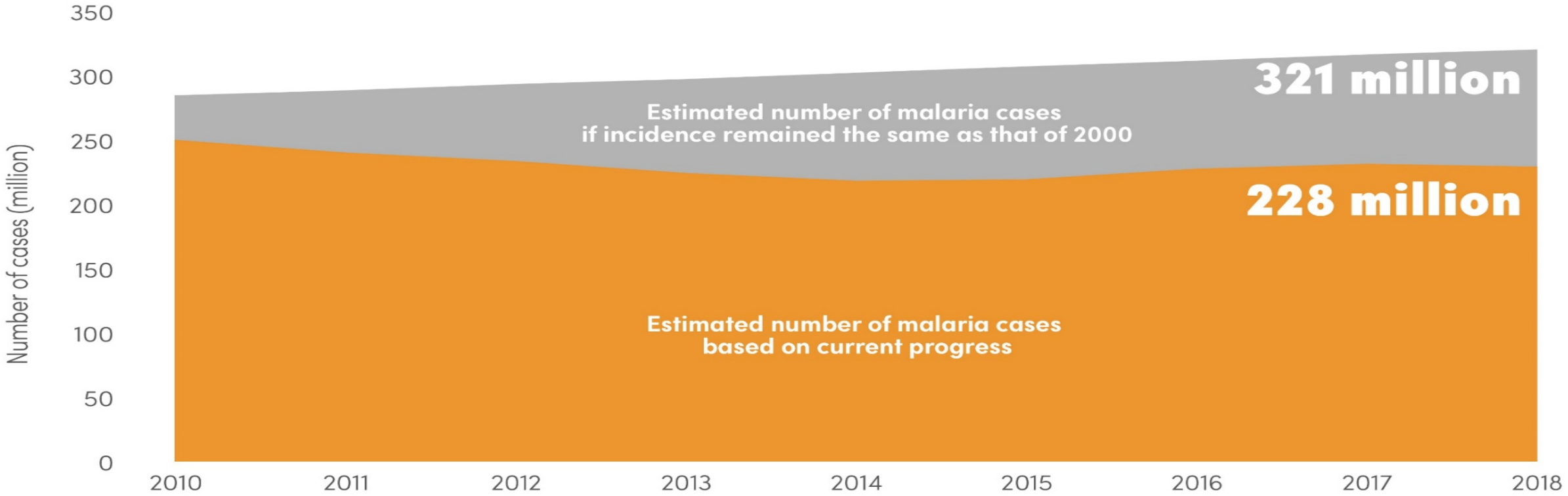


WHO: World Health Organization.

Great strides – 93 million infections prevented, 2000-2018

FIG. 2.7.

Comparison of current estimated malaria cases with expected cases had malaria incidence remained at 2000 levels globally *Source: WHO estimates.*

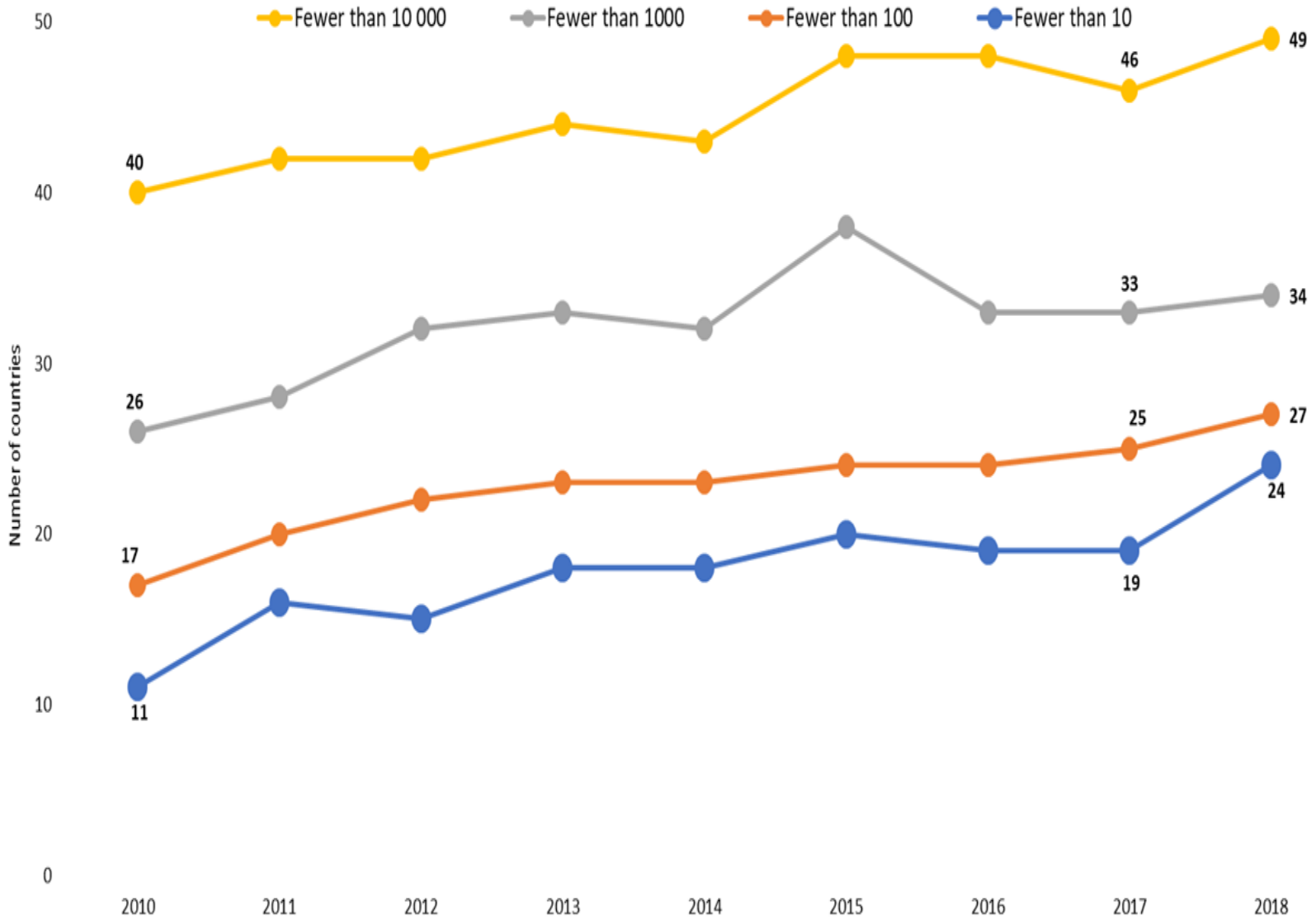


WHO: World Health Organization.

Success is possible

Certification of malaria free countries

Global progress towards malaria elimination



Danger signs – Need to work differently

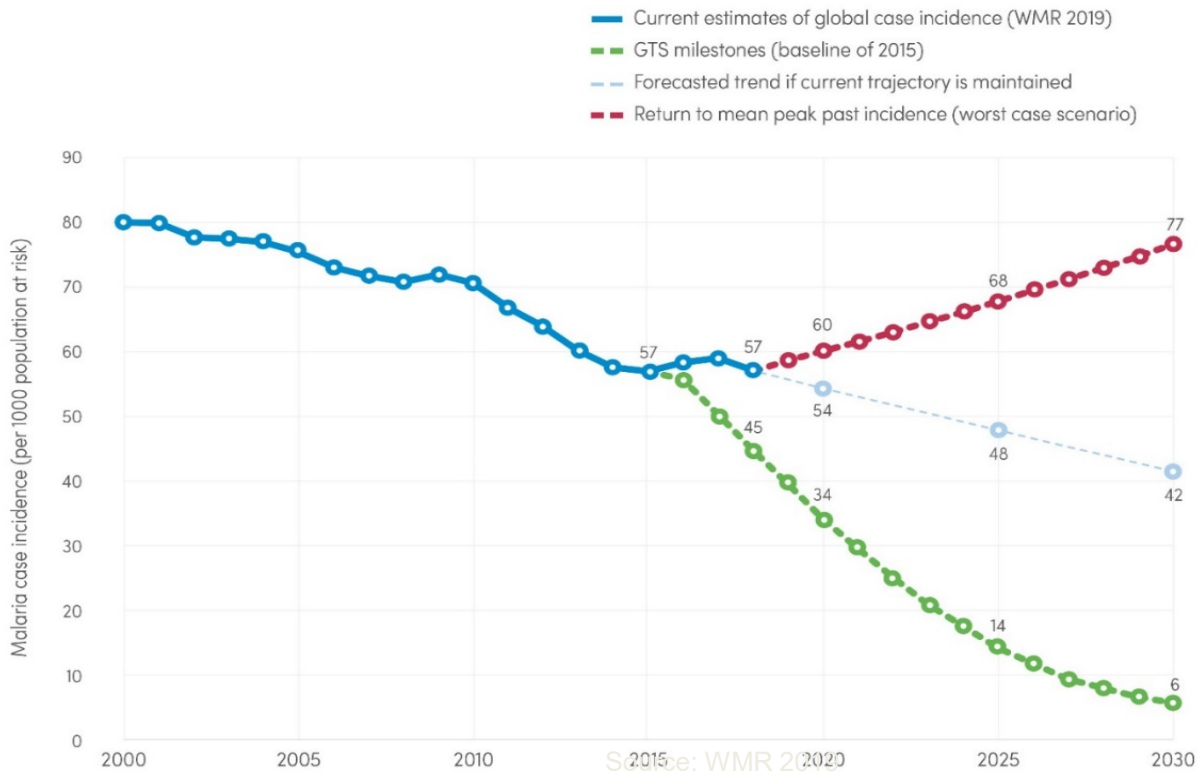
Danger signs, 1 – GTS milestones and targets unlikely to be achieved

Global Technical Strategy on Malaria

Goals	Milestones		Targets
	2020	2025	2030
1. Reduce malaria mortality rates globally compared with 2015	At least 40% ✘	At least 75%	At least 90%
2. Reduce malaria case incidence globally comparted with 2015	At least 40% ✘	At least 75%	At least 90%
3. Eliminate malaria from countries in which malaria was transmitted in 2015	At least 10 countries ✓	At least 20 countries	At least 35 countries
4. Prevent re-establishment of malaria in all countries that are malaria free	Re-establishment prevented ✓	Re-establishment prevented	Re-establishment prevented

FIG. 2.9.

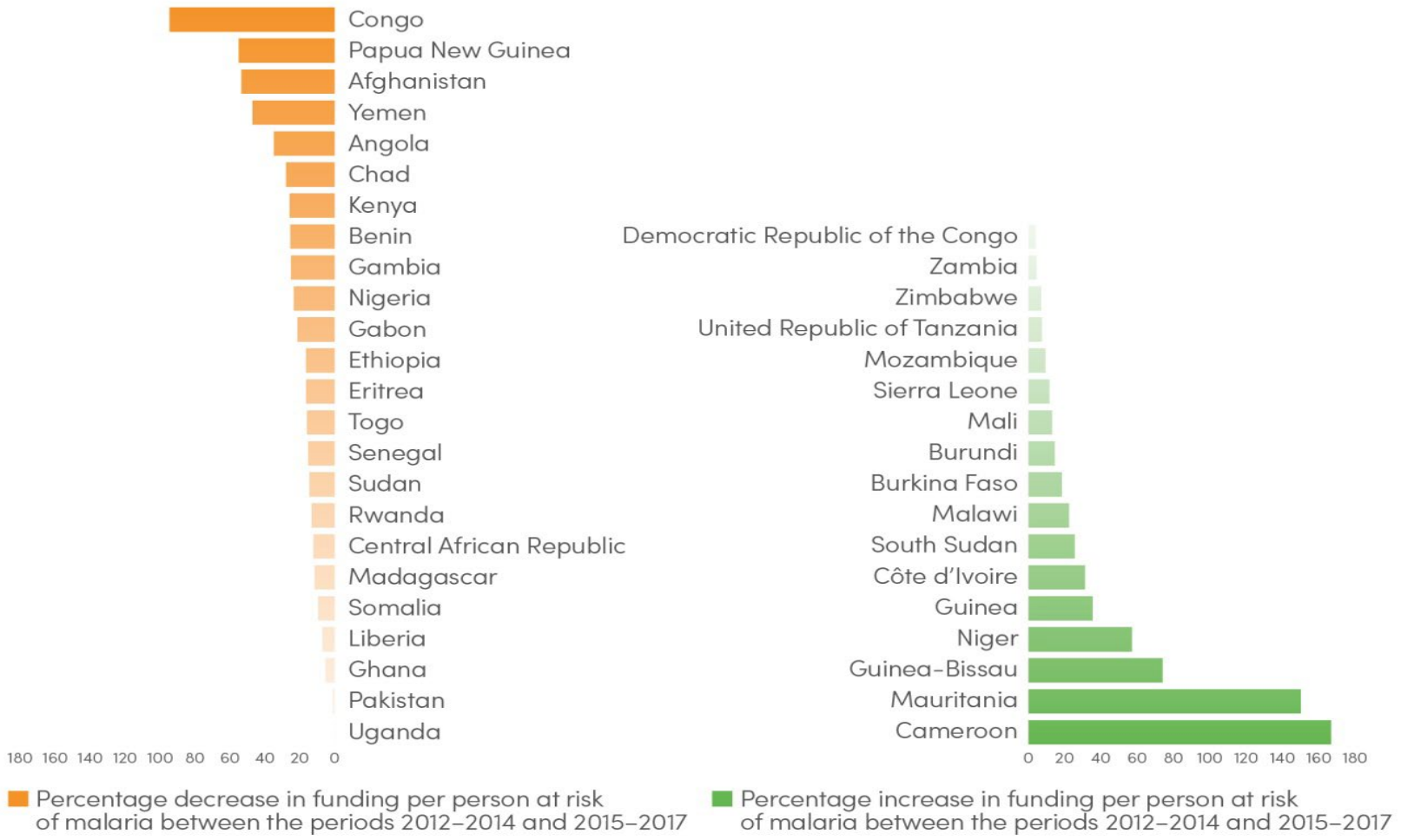
Comparison of progress in malaria case incidence considering three scenarios: current trajectory maintained (blue), GTS targets achieved (green) and worst case scenario, that is a return to mean peak past incidence in the period 2000–2007 (red) *Source: WHO estimates.*



GTS: *Global technical strategy for malaria 2016–2030*; WHO: World Health Organization; WMR: *World Malaria Report*.

Danger signs, 2 – Dwindling average funding per person at risk of MAL

Percentage change in average funding[a] per person at risk of malaria in the periods 2012–2014 and 2015–2017, in 41 high-burden countries *Sources: ForeignAssistance.gov, United Kingdom Department for International Development, Global Fund, NMP reports, OECD creditor reporting system database, the World Bank Data Bank and WHO estimates.*



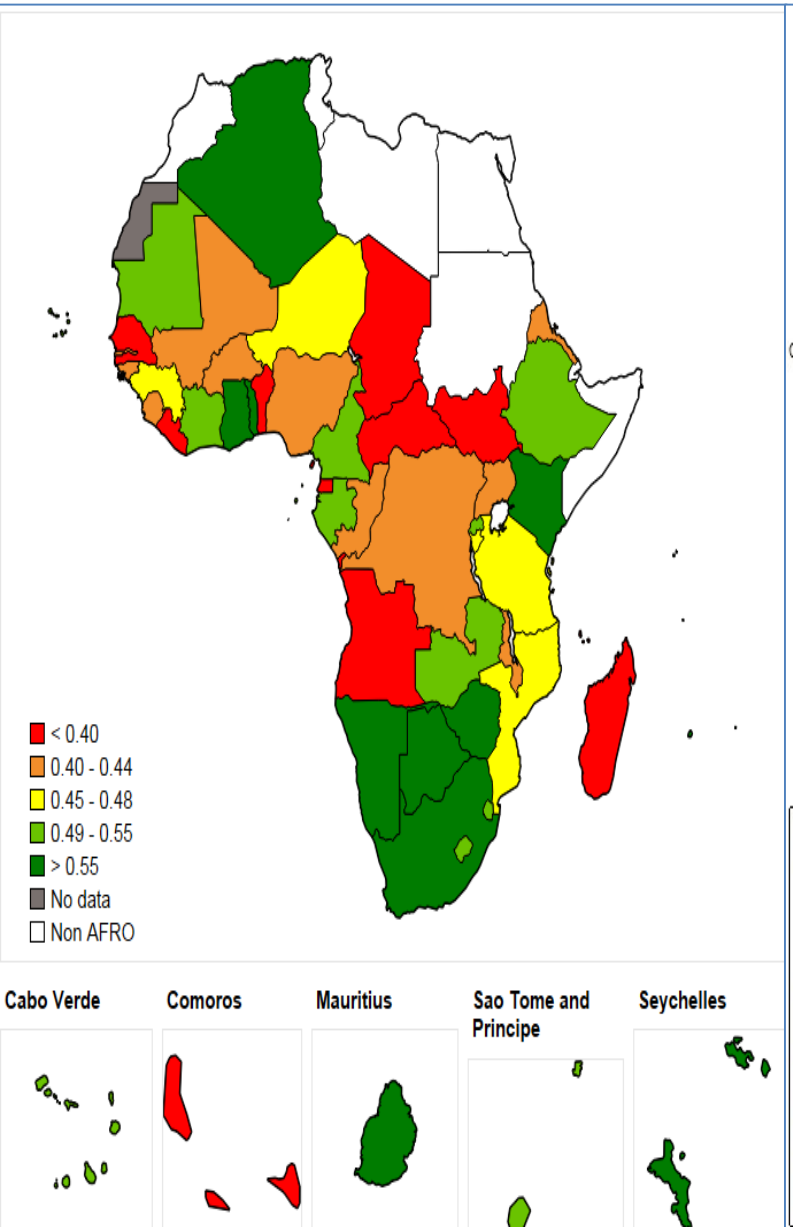
NMP: national malaria programme; OECD: Organisation for Economic Co-operation and Development; WHO: World Health Organization.

[a] *In* **Fig 2.6**, *funding includes international disbursements and contributions from governments of endemic countries, excluding resources absorbed for malaria case management through health services utilisation.*

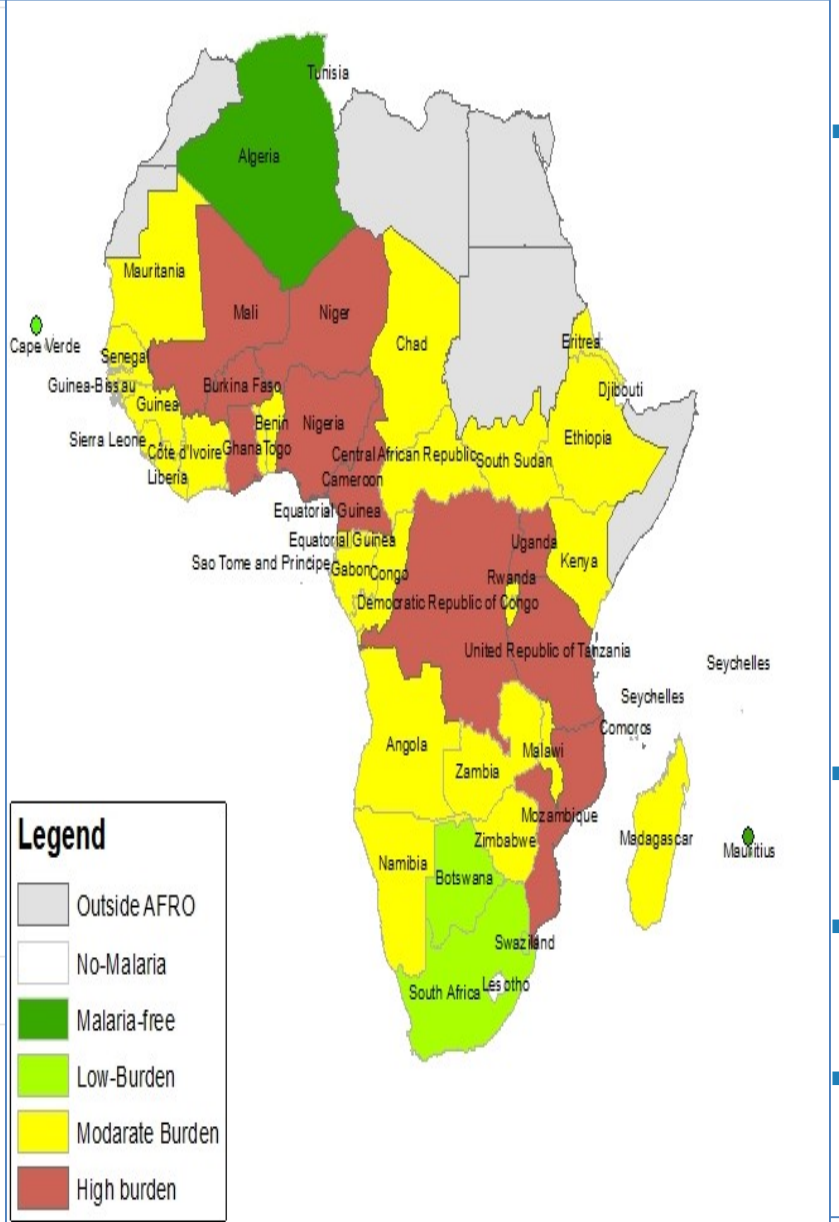
- 2018 estimated investment: US$ 2.7 billion
  - Less than 2017 investment of US$ 3.2
  - Well below required US$ 5.0 billion to stay on track to GTS milestones
- Domestic and foreign assistance for health and development likely to suffer due to recent global economic downturn potentiated by the COVID 19 pandemic

Danger signs, 3 – Health systems bottlenecks; many people missing out key interventions

Map 1: UHC coverage index, Africa



Map 2: Malaria Distribution, Africa



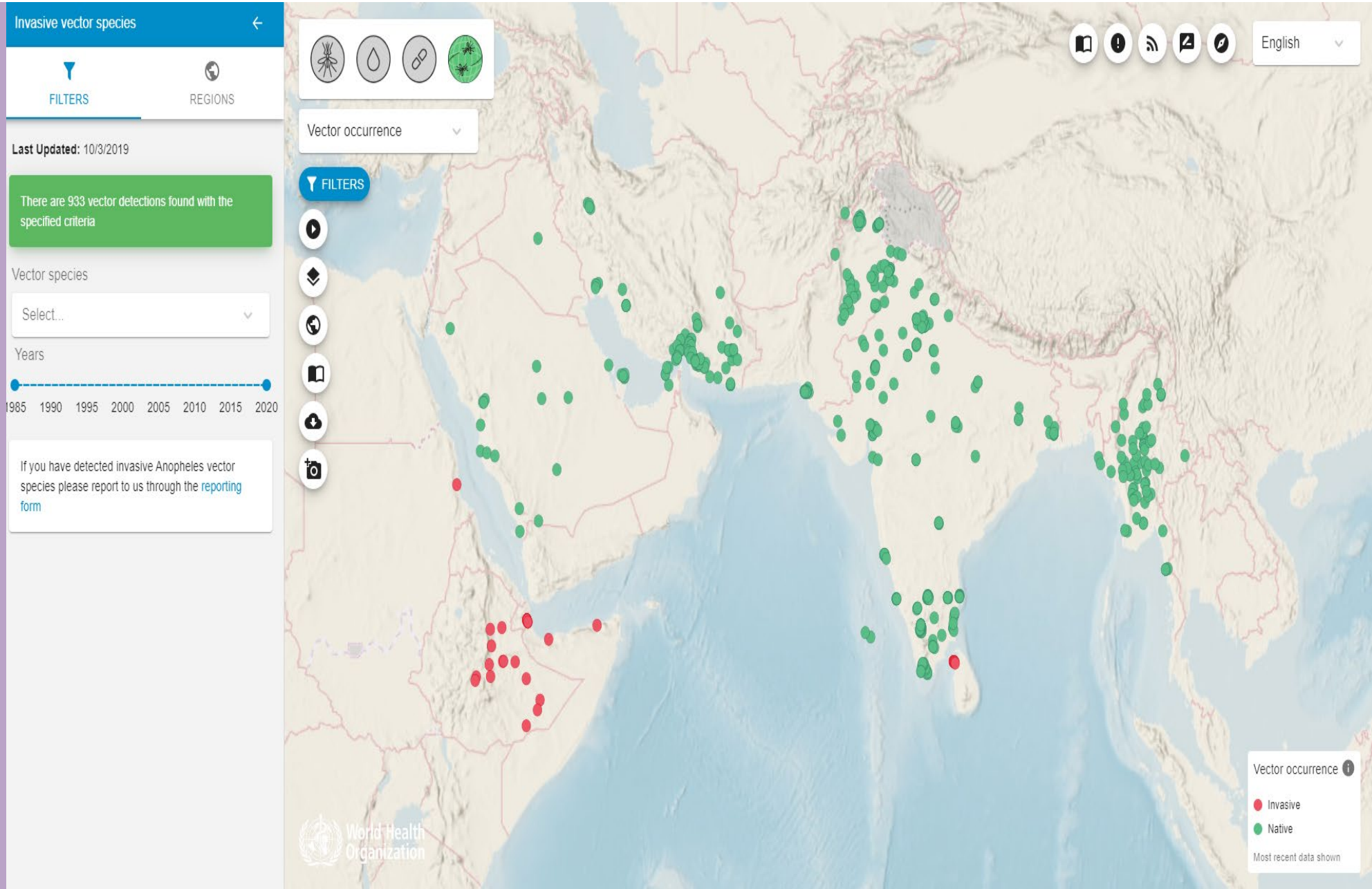
- 20 years of incredible progress in scaling up; Yet challenges exist in access and use of interventions
- Underlying health systems bottlenecks, many left behind:
  - ✓ 40 % cases undiagnosed, not treated
  - ✓ 35 % not protected by effective vector control
  - ✓ Only 20 % of pregnant women protected by chemoprevention
  - ✓ 45% gap b/w ANC1 (80% attendance) and IPTp1 (35% coverage)
  - ✓ Low (48%) ITN use in U5
- Who is missing out and what barriers do they face?
- All people should have access to the services they need (does not mean everything).
- Improving platforms of delivery and smarter use of resources: Focus on efficiency and equity

Danger signs, 4 – COVID19 potential to disrupt MAL services; to shift attention from MAL

- COVID19 lessons abound:
  - The threat of infectious disease on social and economic wellbeing
  - COVID19 disrupted the delivery of essential services due to demand and supply factors(pulse survey data)
    - Demand: 76% of countries reported reduction in OPD care and attendance – due to: lockdowns hindering access, and financial difficulties during lockdowns
    - Supply: 66% of countries reported cancellation of elective services – due to: staff redeployment to provide COVID19 relief, unavailability of services owning to closure of health facilities or health services, and supply chain difficulties
  - Exposed the fragility of delivery systems (even the most sophisticated ones)
  - Exposed the weakness of public health functions (data systems, etc.)
  - Mainstreamed the importance of being able to adapt
  - Upended the global economy, shrinking the pot for investments in health (ironic)
- NMPs adapted successfully:
  - Incredible work by malaria programmes to ADAPT and safely deliver campaigns
- What do we learn from COVID, what do we need to do differently as a result of COVID?

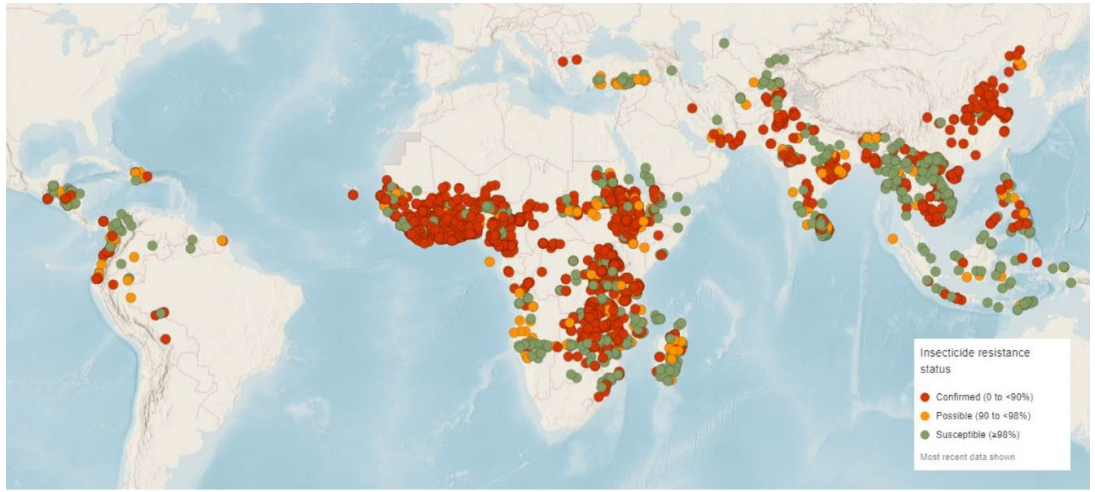
Danger signs, 5 – Changing ecology: the example of An. Stephensi invasion in Africa

- Detected in
  - Djibouti (2012)
  - Ethiopia (2016)
  - S.Sudan (2019)
  - Somalia
- High spread rate: 125-150km/year
- Major threats - High urbanization + High Pop increase rates in Africa
  - High urban population (43.8%)
  - Annual growth rate (4.1%)
- Countries to take preemptive action – Surveillance and response

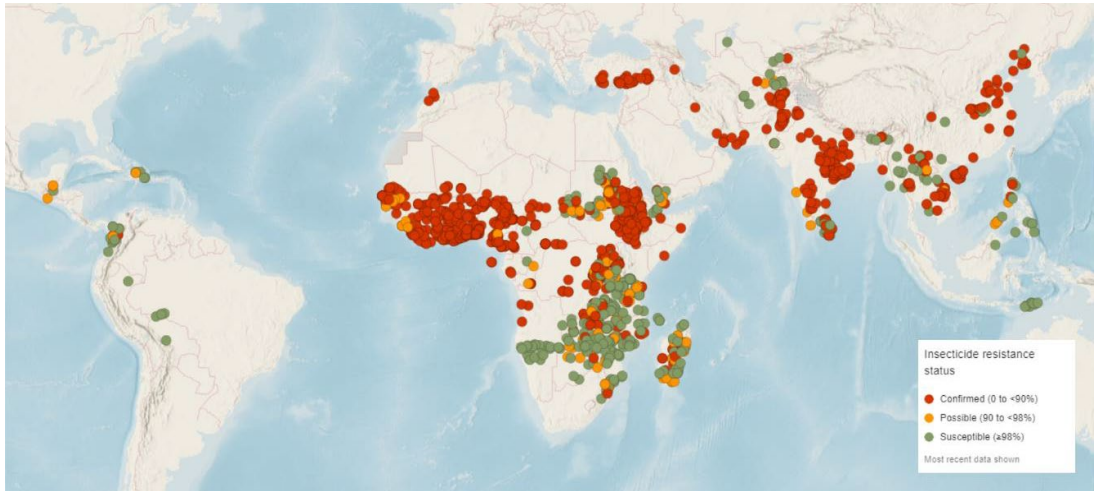


Danger signs, 6 – High insecticide resistance of MAL vectors

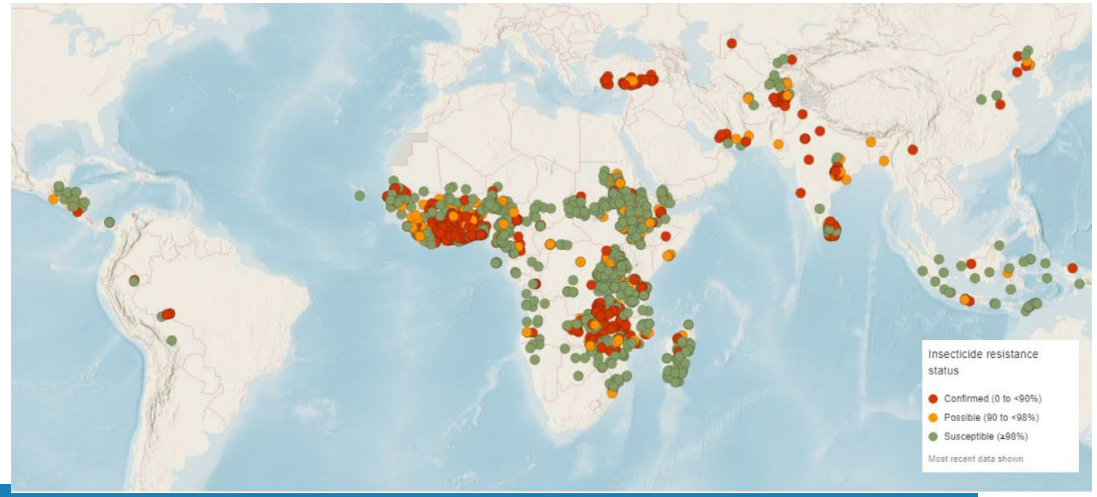
Pyrethrods



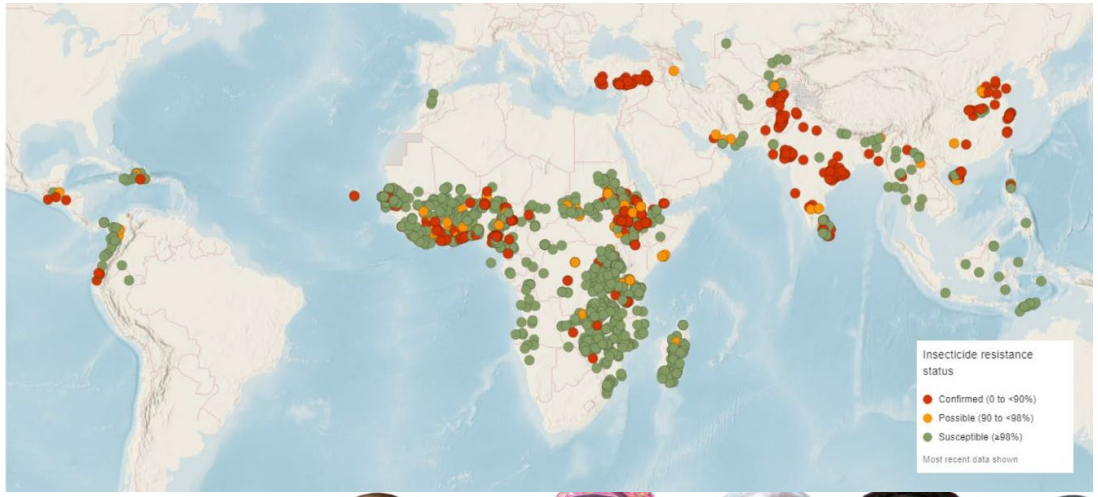
Organochlorines



Carbamates



Organophosphates



Danger signs, 7 – Artemisinin resistance & pfhrp2/3 deletion

- **Artemisinin resistance**
  - In 2020 Rwanda published documentation of artemisinin resistance (de novo K13 mutation) – de novo mutation, no documented clinical impact on the patients, the patients clinically recovered fully;
  - Widespread resistance a threat to efficacy of the ACTs, the recommended for clinical treatment of malaria caused by plasmodium falciparum, the cause of over 90% of malaria cases) in Africa
  - Countries to maintain surveillance

- **pfhrp2/3 deletion**
  - HRP2 deletion results in false P. falciparum RDT negatives and missing of malaria cases. HRP2 deletion documented in Eritrea and Ethiopia –have changed or exploring to change of mRDTs
  - Countries to undertake the appropriate investigations for HRP2/3 deletions
    - Generic protocols are available in English and French languages.
    - Some countries already trained on the protocol – Kenya, Rwanda, Uganda, Tanzania, Zambia, Ethiopia and Eritrea; training planned for some others before COVID19 – Senegal, Mali, Burkina Faso, Cote D'ivoire, Gambia, Guinea and Niger

Danger signs, 8 – Threats of malaria epidemics

MAL Epidemics, AFRO, 2019/20

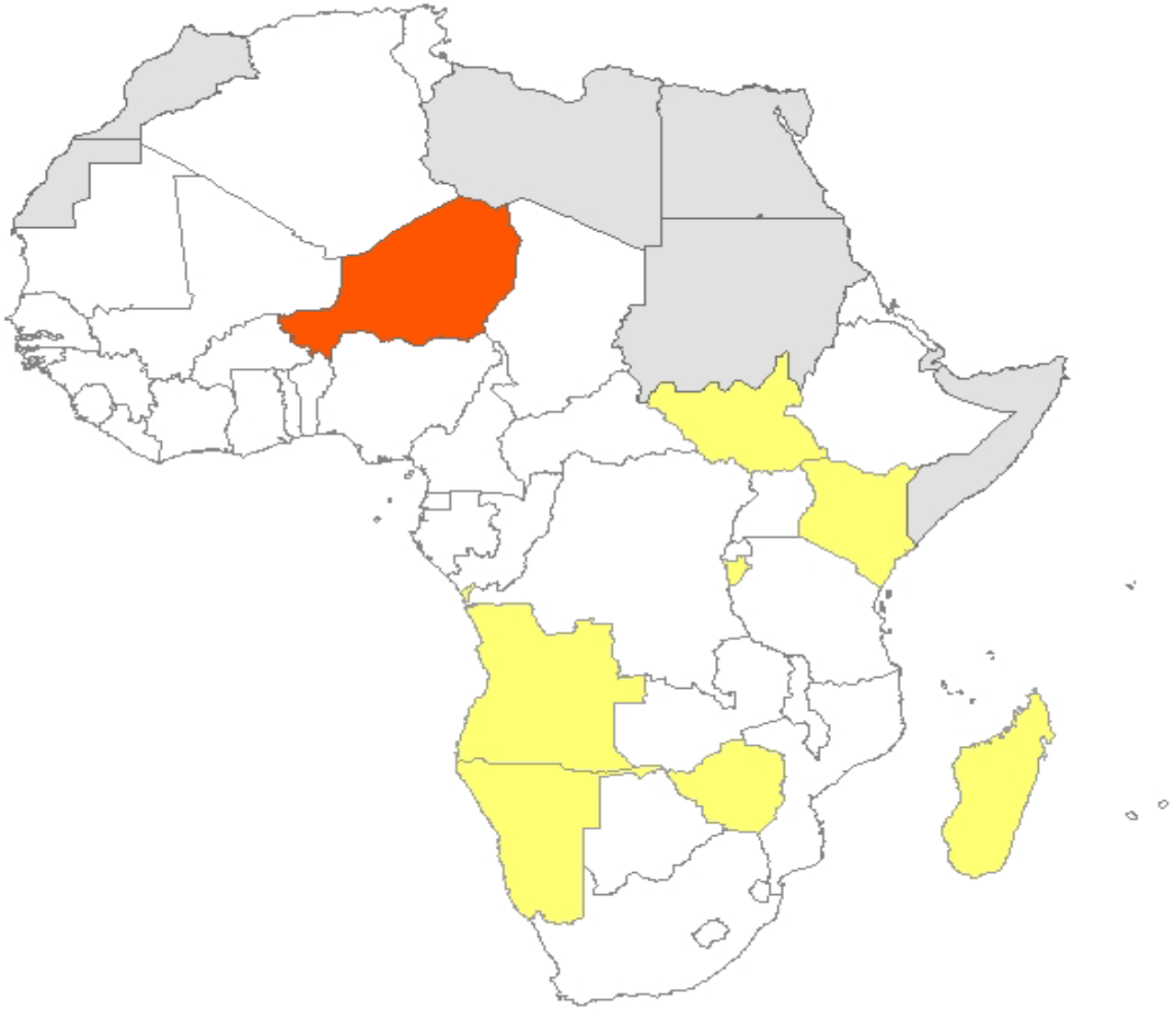
1. Angola;
2. Kenya;
3. Madagascar;
4. Niger;
5. South Sudan;
6. Zimbabwe;
7. Burundi;
8. Namibia

Ongoing

Closed

Normal

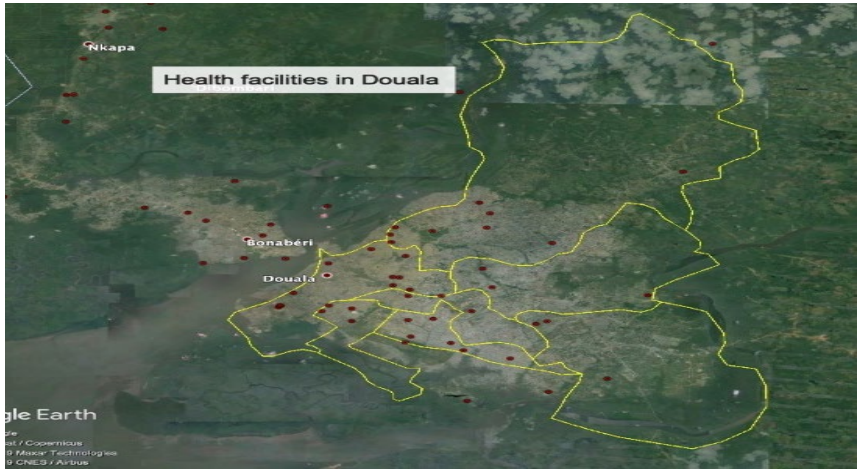
Non-AFRO



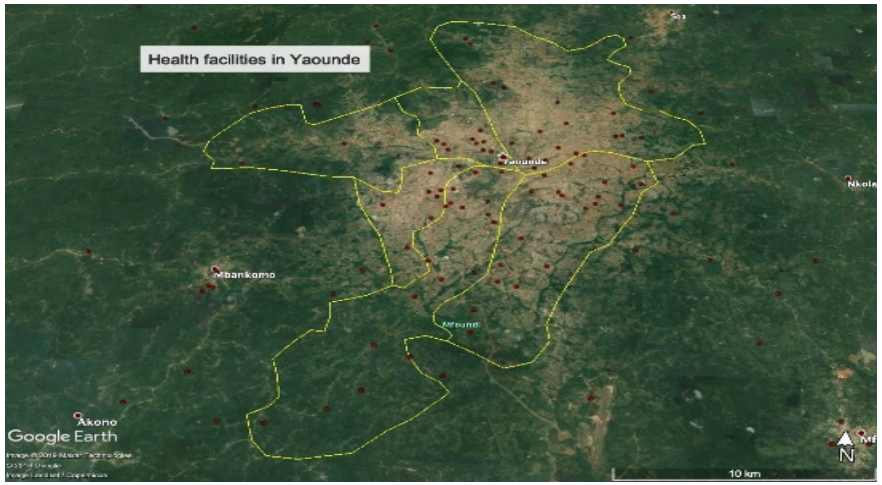
Catching up

Responding to the danger signs 1 – HBHI, the 2018 response to slowing MAL progress

- HBHI, a country led, partner enabled approach for evidence-informed action that gets high burden countries back on track towards a malaria-free future;
- HBHI, a holistic approach with four mutually reinforcing response elements
  - political will;
  - strategic information;
  - better guidance; and
  - coordinated response.



Malaria burden stratification + Tailoring of Interventions



- Maps of Douala and Yaoundé showing high concentration of public health facilities.
- As a substitute to LLIN deployment, high levels of case management and surveillance would be a suitable option for these two large cities (about 5 million people live in these two cities)

Responding to the danger signs 2 – What should we do differently? How should we work differently?

- Countries:
  - What should countries do differently?
  - How should countries work differently?
- WHO:
  - What should WHO do differently?
  - How should WHO work differently?
- Partners:
  - What should Partners do differently?
  - How should Partners work differently?

RETHINKING MALARIA!

COUNTRY AND REGIONAL CONSULTATIONS

List of technical guidelines

Comprehensive Guidelines

For more info:
https://www.who.int/health-topics/malaria#tab=tab_1

спасибо

谢谢

GRACIAS

THANK YOU

ありがとうございました

MERCI

DANKE

धन्यवाद

شُكراً

OBRIGADO