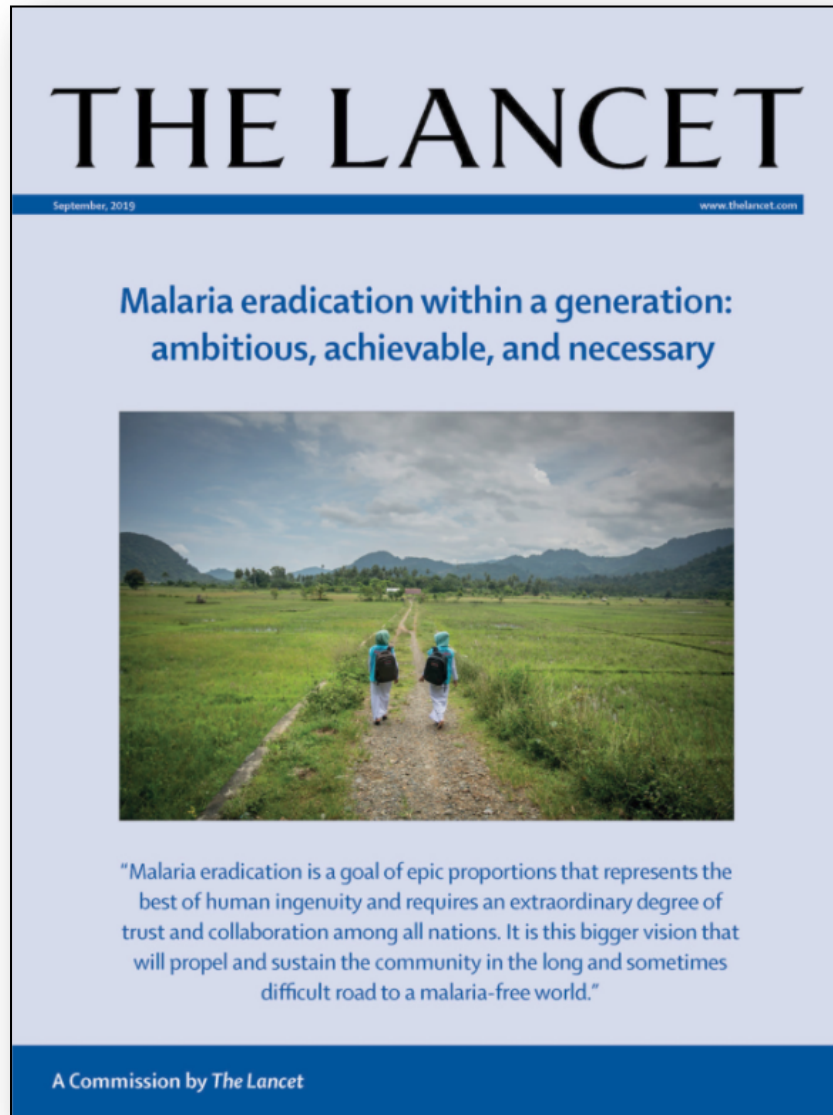




# Partnering for Impact

Nick Hamon PhD

IVCC Stakeholder Forum  
19<sup>th</sup> September 2019



**Malaria eradication within a generation:  
ambitious, achievable, and necessary**

**Malaria eradication is a goal of epic proportions. It represents the best of human ingenuity and requires an extraordinary level of trust and collaboration among all nations.**

Global **Malaria** Programme



WHO Strategic Advisory Group  
on Malaria Eradication

## **Malaria eradication: benefits, future scenarios and feasibility**

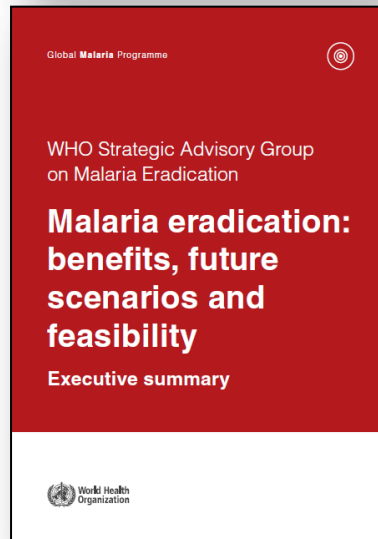
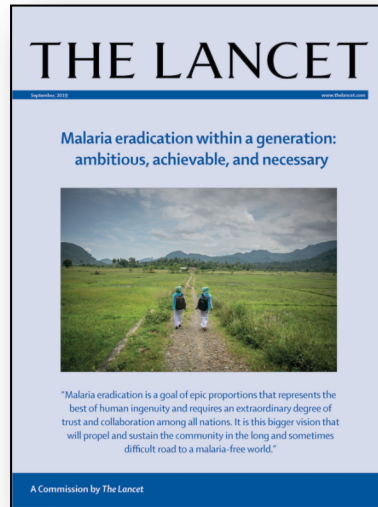
**Executive summary**



**The world is not on track to meet the 2020 milestones that will lead us to lower case incidence and mortality by 90% from the 2015 level by 2030**

**Without massive concerted and coordinated action, we are unlikely to meet these targets.**

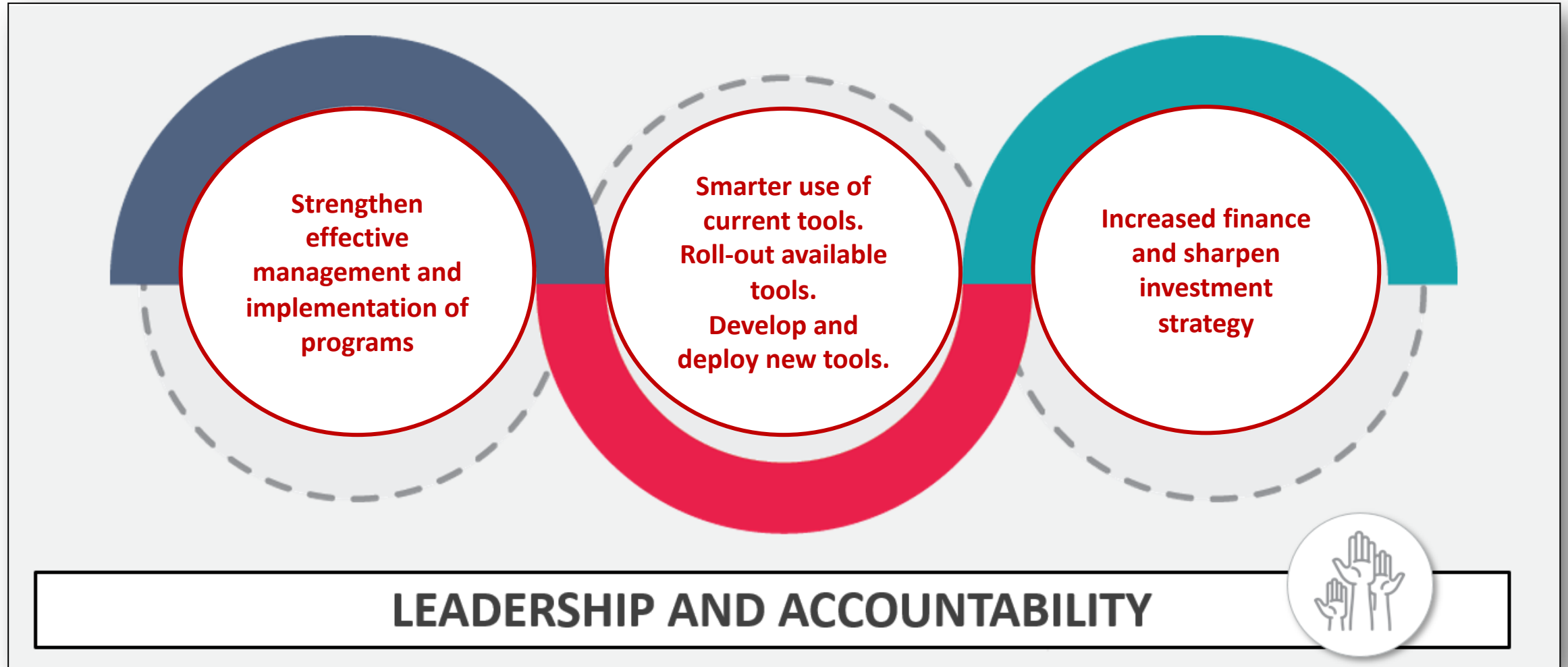
**Impossible to either set a target date for malaria eradication, formulate a reliable operational plan for malaria eradication or to give it a price tag.**

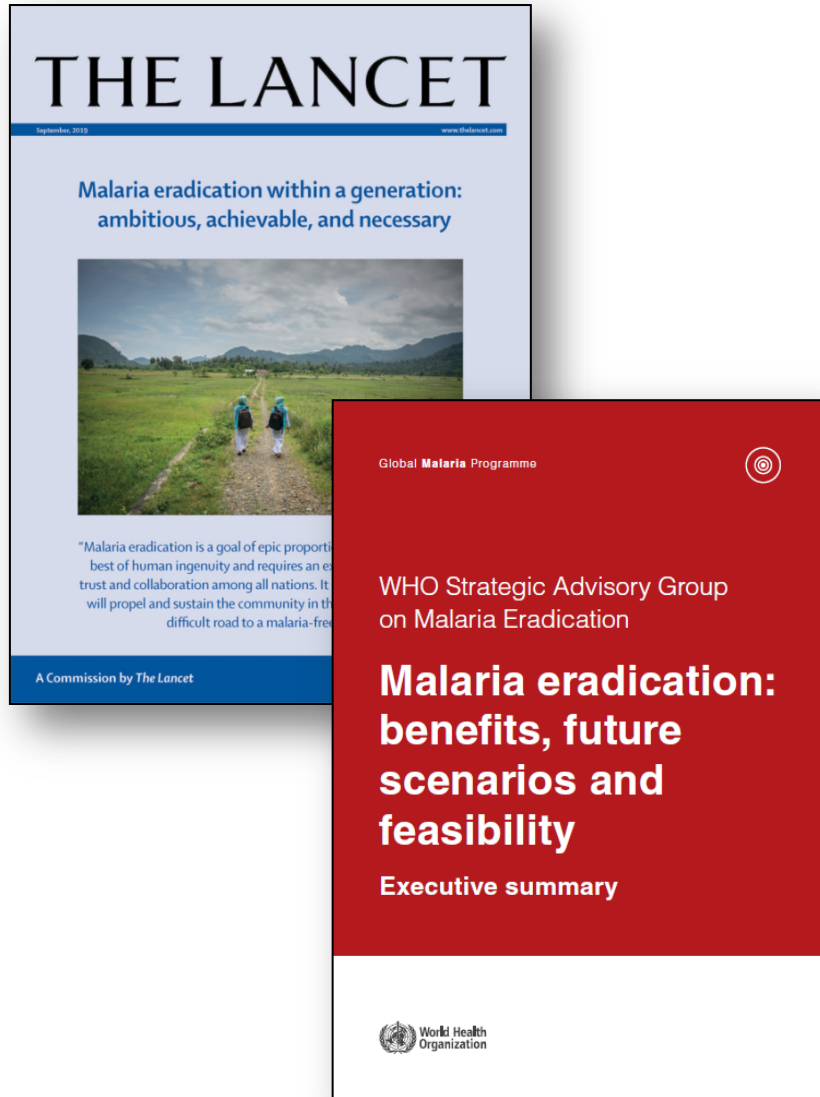


- ....calls for substantial investment in new diagnostics, drugs, and vector control technologies.
- New tools will be particularly valuable if they improve surveillance, have long durations of efficacy..... and are able to drive down malaria in the highest transmission areas.
- Eradication by 2050
- Renewed drive towards research and development on vector control, chemotherapy, and vaccines to develop the transformative tools and knowledge base that will help achieve eradication in the highest burden areas.
- No date set for eradication



# Lancet Commission on Malaria Eradication: Engineering the Future: Three Ways To Bend The Curve





**IVCC and its partners have  
not waited for The Lancet  
Commission or SAGme to set  
a course for malaria  
eradication**

# Lancet Commission on Malaria Eradication: Vector Control



## Insecticides

- Insecticide-based vector-control tools have saved more lives than any other set of interventions and will be essential for eradication.
- New tools must address insecticide resistance, be longer lasting, and target outdoor-biting mosquitoes.
- IVCC oversees the pipeline in this area, and we describe prospects for addressing these challenges.

## Overcoming resistance

- New insecticides with novel mechanisms of action are essential.
- 2017/2018 marked the release of the first new insecticides for malaria in more than 30 years. Clothianidin (IRS), chlorfenapyr (dual-ingredient LLIN).
- Three candidate insecticides with novel modes of action are under development.

# Getting closer to eradication through Vector Control

Managing high transmission in poorly accessible regions



Project	Product	Expected Launch																	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
K-Othrine Polyzone	LLIRS																		
Actellic CS	LLIRS																		
SumiShield	LLIRS																		
Interceptor G2	LLIN																		
Fludoro Fusion	LLIRS																		
RoyalGuard	LLIN																		
PBO LLINS	LLIN																		
Syngenta	LLIRS																		
Novel AI A	LLIRS																		
Novel AI A	LLIN (coated)																		
Novel AI A	LLIN (impregnated)																		
Novel AI A	XLLIRS																		
T-Net	Trapping net																		
ATSB	ATSB outdoor																		
ATSB	ATSB indoor																		
Novel AI B	LLIN																		
Novel AI C	LLIN																		
Novel AI E	LLIN																		
Novel AI F	Novel AI																		
Application tech	Operational assist.																		
ED Sprayer	Improved sprayer																		
VectoWeb	Surveillance																		
Chromobacterium	Adulticide																		
RNAi larvicide	Larvicide																		
Aerial Larvicides	Disruptive tech.																		
Aerial ATSB	Disruptive tech.																		
Eave Tubes	Disruptive tech.																		
Wolbachia	Disruptive tech.																		
Gene Drive	Disruptive tech.																		
Oxitec	Disruptive tech.																		

**DELIVERY AND IMPACT**

**PRE DEVELOPMENT  
/ DEVELOPMENT**

**HIGH POTENTIAL /  
HIGHER RISK**

Accessibility

Hard

Easy

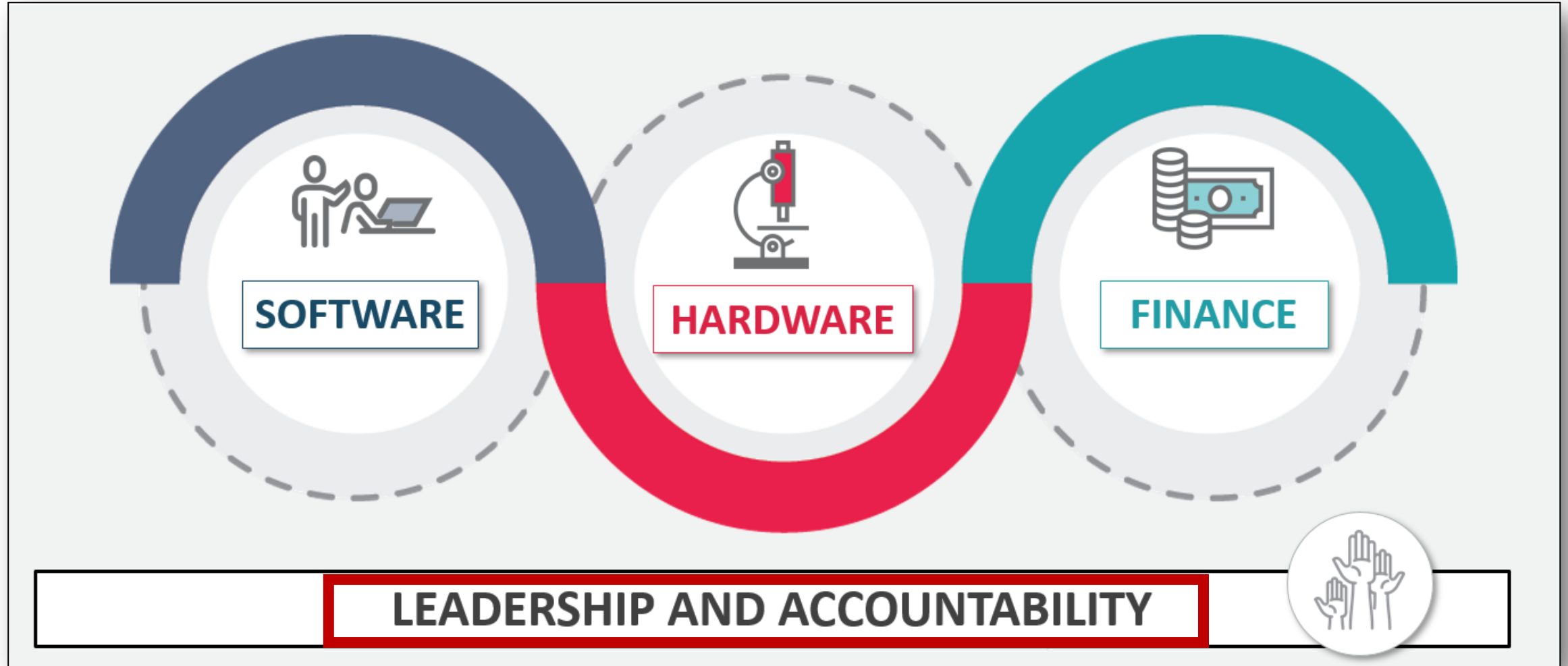


Low

High

**Transmission**

# Lancet Commission on Malaria Eradication: Engineering the Future: Leadership and Accountability





# Lancet Commission on Malaria Eradication: Zero by 40 Partnership



- ‘Prospects for maintaining this pipeline were boosted in April, 2018, with the launch of the ZERO by 40 initiative by the IVCC and the Bill & Melinda Gates Foundation.
- This initiative brings together the world’s five largest agrochemical companies that have committed to providing additional resources, expanding research and development, and increasing technical collaboration to achieve malaria eradication’

## Davos 2018



## 11 Commitments at CHOGM 2018



## Davos 2019

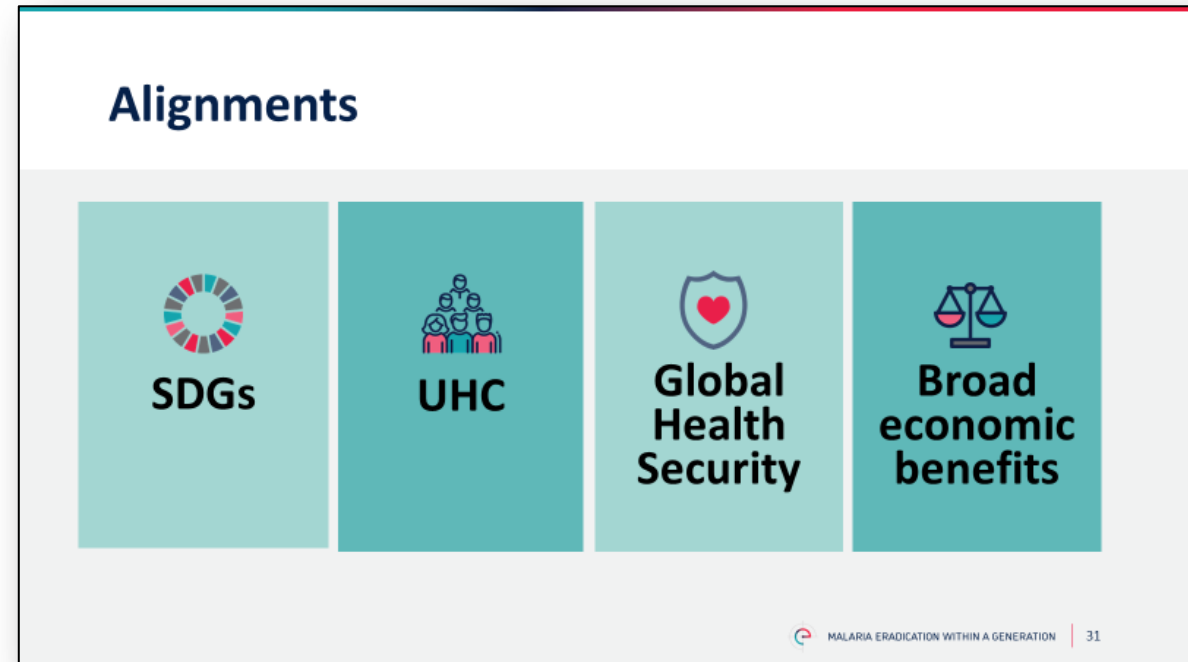


## The Commitment *Together we will:*

- Continue to screen new chemistry for potential use in existing and new vector control solutions.
- Sustain and extend programs that will support the development of existing and novel insecticide tools and solutions to help eradicate malaria.
- Advance R&D, through bilateral partnerships, as appropriate, to find and bring to market a toolbox of next-generation vector control interventions.
- Where appropriate, collaborate with industry colleagues to better understand and manage the bioavailability of new chemistries on diverse surfaces, supporting the development of improved efficiency and cost effectiveness of application technologies.
- Establish a multi-industry coalition of partners, via the intermediaries of IVCC or similar platforms, to facilitate the integration of vector control and broader science technologies (e.g. drones/robotics/big data/vitro mosquito attractant screening) to improve the public health of rural communities, advancing basic and implementation research and capacity building.
- Where possible, identify potential synergies and share know-how between the Crop Protection and Pharma industries to drive innovation across drug and vector control interventions.
- Work collaboratively to ensure technically sound IRM and IVM best practices, ensuring optimum performance and reduced probability of resistance development
- Ensure that the global supply chain continues to deliver the vector control interventions needed in a timely and cost-effective manner.
- Prioritize and effectively leverage organisational skill-set and know-how to meet our malaria eradication ambitions.
- Continue to focus attention on the health and well-being of smallholder farmers in malaria endemic countries.
- Track and provide updates on the progress of our commitments toward achieving the global goals of malaria eradication.

# Lancet Commission on Malaria Eradication: Malaria Will Not Be Eradicated Under A 'Business As Usual' Scenario

- A combination of plausibly available domestic and international resources is sufficient to pay for malaria eradication.
- Malaria eradication is a good investment with large social and economic rewards



# Public Health and Agriculture are Intrinsically Linked

54 million agricultural households (324 million individuals) on < 10 hectares



## Impact of eliminating malaria by 2040 on productivity on smallholder farming families:

- 840 million fewer malaria cases
- 3.2 billion additional work days
- 1.5 billion additional school days
- 1.1 billion fewer caregiving days provided by women
- 163 million individuals in these households living in poverty in 2018; 50 million would escape poverty if malaria eliminated by 2040
- Reducing poverty is a necessary condition for multi-sectoral nutrition programs to reduce stunting
  - 46.5 million children (under 5) with stunting in SSA
  - 21.5 million children (under 5) with stunting in agricultural households



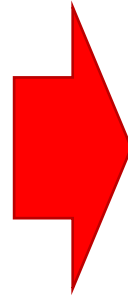


**What more could we  
be doing as partners?**

**14,000 deaths from Ebola  
between 2014 and August 2019**

**In 2017 alone, malaria claimed  
the lives of more than 435,000  
people**

**When does >400,000 deaths a  
year constitute a 'Public  
Health Emergency of  
International Concern'?**



## **A Public Health Emergency of International Concern (PHEIC)**

Formal declaration by the WHO of "an **extraordinary** event which is determined to constitute a public health risk to other States through the **international spread of disease** and to potentially require a coordinated international response", formulated when a situation arises that is "serious, sudden, unusual or unexpected", which "carries **implications for public health beyond the affected State's national border**" and "may require immediate international action"