

# MALARIA ROUNDTABLE



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Healthier World  
Initiative



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# WELCOME

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**Chris Getonga**

Chair, End Malaria Council Kenya



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# WELCOME

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**Julie Wickman**

SVP, SCJ Global Science, Governance & Regulatory Affairs



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# SC JOHNSON MALARIA PREVENTION STRATEGY

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**Daniel Ufere**

SCJ Healthier World Lead

**Dr. Tom Mascari**

SCJ Entomology Expert

**Dr. André Mazzari**

SCJ Toxicology Expert

**A CHILD UNDER FIVE DIES EVERY MINUTE FROM MALARIA**



# SC JOHNSON IS UNIQUELY POSITIONED TO LEAD THE FIGHT AGAINST INSECT-BORNE DISEASE



**5<sup>TH</sup> GENERATION  
FAMILY COMPANY**



**CENTER FOR INSECT SCIENCE  
+ FAMILY HEALTH™**



**LEADING MANUFACTURER OF  
PEST CONTROL PRODUCTS**



**OPERATIONS IN  
70 COUNTRIES**



**SALES IN ALMOST  
EVERY COUNTRY**



**SC JOHNSON HQ  
WISCONSIN, USA**



**SC Johnson  
Healthier World  
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# SC JOHNSON HEALTHIER WORLD INITIATIVE

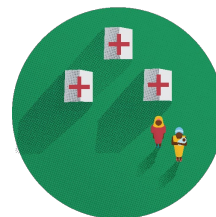
**SCJ HWI MISSION: PREVENT DISEASE  
FOR THE WORLD'S MOST VULNERABLE**

**AYAK DENG DENG  
ONE OF THE MANY CHILDREN BORN AT SCJ COMMUNITY HEALTH CLINICS  
JUBA, SOUTH SUDAN**



## **TOOLS**

**PRODUCTS AND EDUCATION TAILORED  
SPECIFICALLY FOR PEOPLE AT RISK OF DISEASE**



## **COMMUNITY HEALTH CLINICS**

**TO PROVIDE ACCESS TO BASIC HEALTH  
CARE AND DISEASE PREVENTION**



## **CAPACITY BUILDING**

**FOR COMMUNITY HEALTH WORKERS AND  
GLOBAL PUBLIC HEALTH PERSONNEL**

**\$0**

## **NO PROFIT MARGIN FOR SC JOHNSON**

**FOR ANY EFFORT BY SCJ HWI INCLUDING  
THE SALE AND PROCUREMENT OF TOOLS**



NYAGATARE, RWANDA

# TOOLS

# SC JOHNSON HAS DEVELOPED SPATIAL REPELLENTS AS A GLOBAL PUBLIC HEALTH TOOL TO PREVENT INSECT-BORNE DISEASE



GUARDIAN™



MOSQUITO SHIELD™

## KEY BENEFITS OF SPATIAL REPELLENTS



**EASE OF USE: SET IT AND FORGET IT**



**EASE OF DEPLOYMENT: LIGHTWEIGHT AND FLAT-PACKED**



**CONTINUOUS PROTECTION: UP TO ONE YEAR**



**EFFICACIOUS: AGAINST MULTIPLE DISEASES**



**LOW COST: <\$0.01 PER PERSON PER DAY**

*“There are over a billion people that would benefit from Guardian and Shield. People want a tool that works for how they live. Frankly, these are the first tools I’ve seen in 36 years that have the promise of doing that. These could be a real gamechanger.”*



**Richard Allan**

CEO Mentor and former WHO Malaria Coordinator



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**WORLD HEALTH ORGANIZATION HQ  
GENEVA, SWITZERLAND**

# POLICY

# FOR THE PAST 10+ YEARS, SC JOHNSON HAS CONDUCTED CLINICAL TRIALS TO ENABLE WHO APPROVALS FOR SPATIAL REPELLENTS

## WORLD HEALTH ORGANIZATION

~2011 - PRESENT

### PERU

34% EFFICACY

ARBOVIRUS  
2016-19

### MALI

MALARIA  
2022-24

Inconclusive due to  
improper deployment  
and coverage

### KENYA

33.4% EFFICACY

MALARIA  
2021-23

### SRI LANKA

ARBOVIRUS  
2023-25

### INDONESIA

52% EFFICACY

MALARIA  
2011

66% EFFICACY

MALARIA  
2016-19

#### EFFICACY OF COMPARABLE TOOLS

MOSQUITO NETS: 17-45%

INDOOR RESIDUAL SPRAYING: 0-85%

MALARIA VACCINE: 13-40%

FLU VACCINE (US): 19-48%



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# WHO APPROVALS: RECEIVED AUGUST 13, 2025



WORLD HEALTH ORGANIZATION HQ  
GENEVA, SWITZERLAND

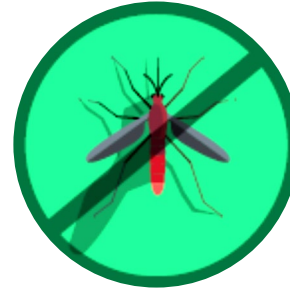
## WHO POLICY RECOMMENDATION

- FOR SPATIAL REPELLENTS AS A NEW CLASS OF TOOLS TO PREVENT DISEASE.
- GOVERNED BY WHO GLOBAL MALARIA + NEGLECTED TROPICAL DISEASES PROGRAMME.

## WHO PREQUALIFICATION LISTING

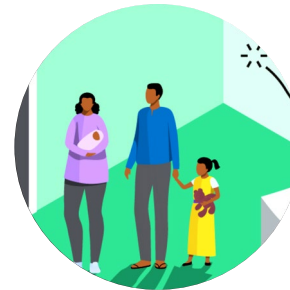
- FOR GUARDIAN™ + MOSQUITO SHIELD™ AS FIRST IN CLASS TOOLS APPROVED FOR PROCUREMENT + DEPLOYMENT.
- GOVERNED BY WHO PREQUALIFICATION OF MEDICAL PRODUCTS PROGRAMME.

# PILLARS OF PREQUALIFICATION: EFFICACY, SAFETY, QUALITY



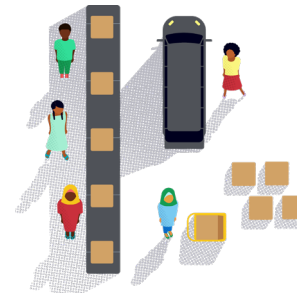
## EFFICACY

GLP LABORATORY TESTS +  
GLP FIELD TESTS IN EAST AND WEST  
AFRICA



## SAFETY

ACTIVE INGREDIENT ASSESSMENTS +  
PRODUCT RISK ASSESSMENT



## QUALITY

PHYSICAL/CHEMICAL DATA +  
PRODUCT FORMULATION +  
MANUFACTURING PROCESS AND SITE

# EFFICACY DATA SUPPORTS PREQUALIFICATION OF GUARDIAN

*“Based on the studies and information provided, all data requirements for the prequalification assessment of product efficacy have been satisfied.”*

**-WHO Public Assessment Report for Guardian™**



**BENIN (PAMVERC - BENIN)**

# CHARACTERIZING THE EFFECT OF GUARDIAN IN FREE-FLIGHT ROOMS



## INSECTICIDAL EFFECT

100% MORTALITY AGAINST *ANOPHELES*, *AEDES*,  
*CULEX*

## DURATION OF PROTECTIVE EFFICACY

95% REDUCTION IN LANDS OVER 12 MONTHS

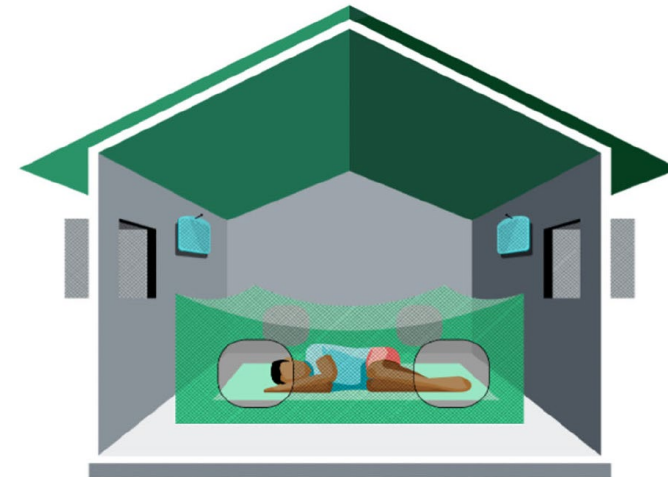
# SEMI-FIELD EFFICACY TESTS IN EAST AND WEST AFRICA



TANZANIA (IFAKARA HEALTH INSTITUTE)



**65%**  
REDUCED  
LANDING



**83%**  
REDUCED  
BLOODFEEDING

# Safety Assessment of SC Johnson Guardian™ Spatial Repellent

**“All assessed populations—including applicators, residents, pregnant mothers, children, and infants—show acceptable risk ratios (below 1) for transfluthrin exposure across all routes and durations, therefore, it can be concluded that Guardian can be used safely for its intended purpose.”**

**-WHO Public Assessment Report for Guardian™**

# Safety Assessment of SC Johnson Guardian™ Spatial Repellent

## Hazard Identification/Characterization

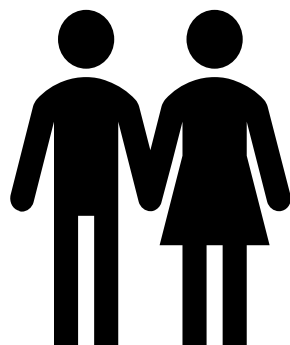
- Active ingredient: Transfluthrin
- Evaluated in the EU (2014), ECHA (2019), and USEPA (2018 and 2021)
- Adequate toxicity studies are available for the AI:
  - Acute, Subchronic, Chronic, Carcinogenicity, Developmental, Reproduction, Genotoxicity, and Neurotoxicity.
- Most **conservative and protective** acute and chronic endpoints: European Chemicals Agency (ECHA)

	Acute endpoint	Chronic endpoint
NOAEL	15 mg/kg bw/day	1.0 mg/kg bw/day
LOAEL	50 mg/kg bw/day (Neurotoxicity)	9.9 mg/kg bw/day (Liver and kidney toxicity )

# Safety Assessment of SC Johnson Guardian™ Spatial Repellent

## Exposure Assessment

### Populations



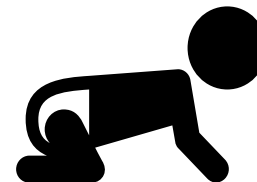
**Adults (I+D)**



**Pregnant mothers  
(I+D)**



**Children  
(2-12 yo)  
(I+D+O)**



**Toddler (1-2 yo)  
(I+D+O)  
Infant (< 1 yo)  
(I+D+O+B)**



**Newborns  
(0-1 mo)  
(B)**

### Routes

- Inhalation (I)
- Dermal (D)
- Oral (O)
- Breast Milk (B)

# Safety Assessment of SC Johnson Guardian™ Spatial Repellent

## Risk Characterization

$$\text{Ratio} = \frac{\text{Estimated systemic dose}}{\text{TSD}}$$

***All assessed populations—including applicators, residents, pregnant mothers, children, and infants—show risk ratios below 1 for transfluthrin exposure across all routes and durations, therefore, it can be concluded that Guardian can be used safely for its intended purpose.<sup>1</sup>***

Risk Ratio ≤ 1 = the health risk is considered to be acceptable

Population	Long term exposure Risk Ratio	Acute (maximal) exposure Risk Ratio
Adults (I+D)	0.54	0.04
Pregnant Mothers (I+D)	0.59	0.04
Children (I+D+O)	0.36	0.02
Toddler (I+D+O)	0.81	0.05
Infant (I+D+O+B)	0.86	0.06
Newborns (B)	0.032	0.002

I = Inhalation, D = Dermal, O = Oral, B = Breast Milk

1. Who.int. (2025). SC Johnson Guardian | WHO - Prequalification of Medical Products (IVDs, Medicines, Vaccines and Immunization Devices, Vector Control). [online] Available at: <https://extranet.who.int/prequal/vector-control-products/sc-johnson-guardian> [Accessed 26 Aug. 2025].



# **BUILDING CAPACITY FOR GLOBAL IMPACT**

**SC JOHNSON KENYA  
NAIROBI, KENYA**

# GUARDIAN™ MANUFACTURING: SC JOHNSON KENYA + ARGENTINA



**NAIROBI, KENYA**  
**LAUNCH: JAN 2025**  
**PEOPLE REACHED: ~20MM ANNUALLY**



**PILAR, ARGENTINA**  
**LAUNCH: EARLY 2026**  
**PEOPLE REACHED: ~20MM ANNUALLY**





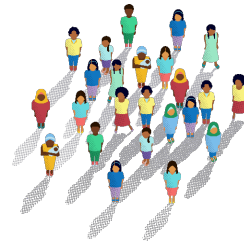
BUDALANGI, KENYA

# IMPACT

# IMPACT SINCE 2013: SC JOHNSON HEALTHIER WORLD INITIATIVE



PORT HARCOURT, NIGERIA



**110MM+**

PEOPLE REACHED WITH SCJ GLOBAL PUBLIC HEALTH SOLUTIONS WITH **NO PROFIT FOR SCJ**



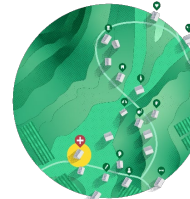
**\$115MM+**

FUNDING COMMITTED TO GLOBAL PUBLIC HEALTH SOLUTIONS BY SCJ



**26**

COUNTRIES WHERE SCJ GLOBAL PUBLIC HEALTH INITIATIVES HAVE MADE IMPACT



**84**

SCJ COMMUNITY HEALTH CLINICS BUILT AND SERVING **1MM+** PEOPLE ANNUALLY

# LOOKING FORWARD

*"The goodwill of people is the only enduring thing in any business. It is the sole substance – the rest is shadow."*

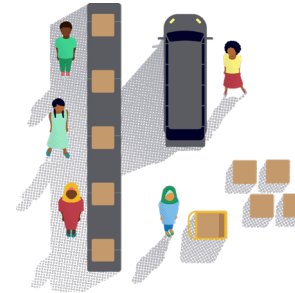
– Herbert F. Johnson, Sr., 1927

FORTALEZA HALL  
WISCONSIN, USA



**~AUGUST 2025**

**WHO POLICY RECOMMENDATION AND PREQUALIFICATION LISTING FOR SPATIAL REPELLENTS**



**~2026**

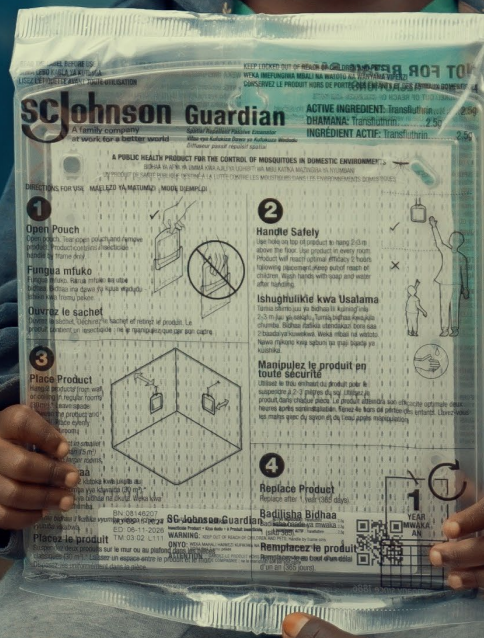
**MANUFACTURING OF GUARDIAN™ BEGINS IN ARGENTINA**



**2026+**

**AT-SCALE ACCESS IN AFRICA, LATIN AMERICA AND BEYOND WITH IMPLEMENTATION + FUNDING PARTNERS**

THANK YOU





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# PANEL DISCUSSION: REGULATORY LANDSCAPE

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## **Adebusola Ekiejare**

Deputy Director – Drug Registration and Regulatory Affairs  
Directorate, Nigeria

## **Dr. Eliningaya Kweka**

Head of Pesticides Bioefficacy Section – Tanzania Plant Health  
and Pesticides Authority

Moderator: **Martin Wamoni**



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# **Hon. Mary Muthoni Muriuki**

Principal Secretary at the Kenyan Ministry of Health



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**UP NEXT:**

# **DEPLOYMENT CONSIDERATIONS**

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**Dr. Eric Ochomo**

Entomologist from Kenya Medical Research Institute

**Vallerian Karani**

Malaria Control - County Government of Busia, Kenya

**Manasseh Wandera**

Executive Director for Society for Family Health, Rwanda

**Martin Nkundumugaba**

Sales & Distribution - Society for Family Health, Rwanda

Moderator: **Tom Putzer**

# GUARDIAN™ + MOSQUITO SHIELD™ DEPLOYMENT SINCE 2016



BUSIA COUNTY, KENYA

**2016**

INDONESIA

**2018**

PERU

**2020**

RWANDA

**2021**

KENYA

SOUTH SUDAN

SYRIA

**2022**

MALI

YEMEN

**2023**

KENYA

NIGERIA

TANZANIA

**2024**

BENIN

KENYA

NIGERIA

PAUPA NEW GUINEA

PUERTO RICO

SRI LANKA

**2025 (IMPLEMENTED TO DATE)**

GAZA

KENYA

RWANDA

SOUTH SUDAN

SYRIA

UGANDA

**2025 (PLANNED)**

CAMEROON

COLOMBIA

MALI

NIGER

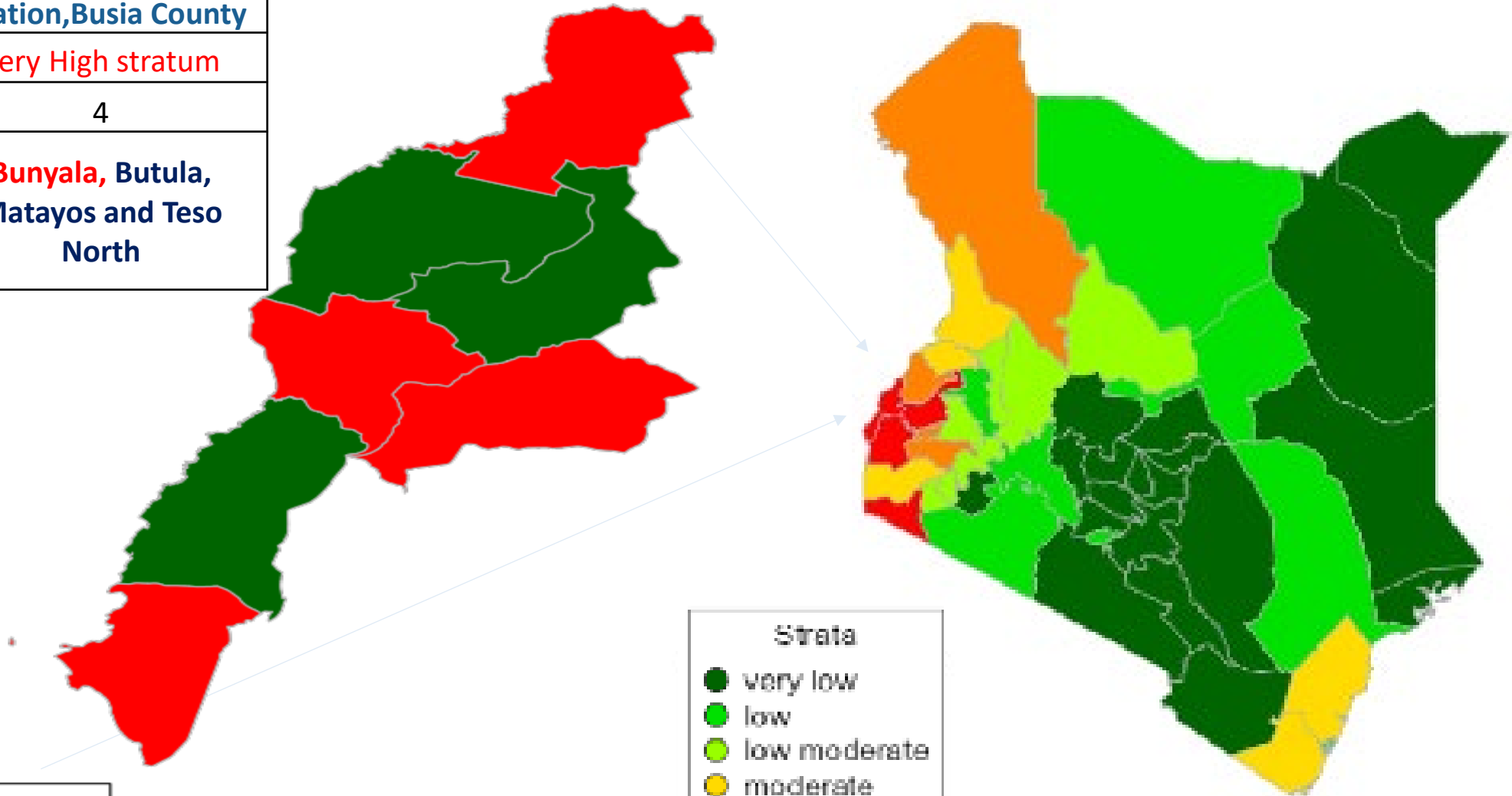
TANZANIA

UGANDA

# EPIDEMIOLOGICAL RISK STRATIFICATION MAP

Admins per stratum, stratification, Busia County

Guide	High stratum	Very High stratum
stratum	3	4
Busia	Samia, Teso South, Teso Central, Nambale	Bunyala, Butula, Matayos and Teso North



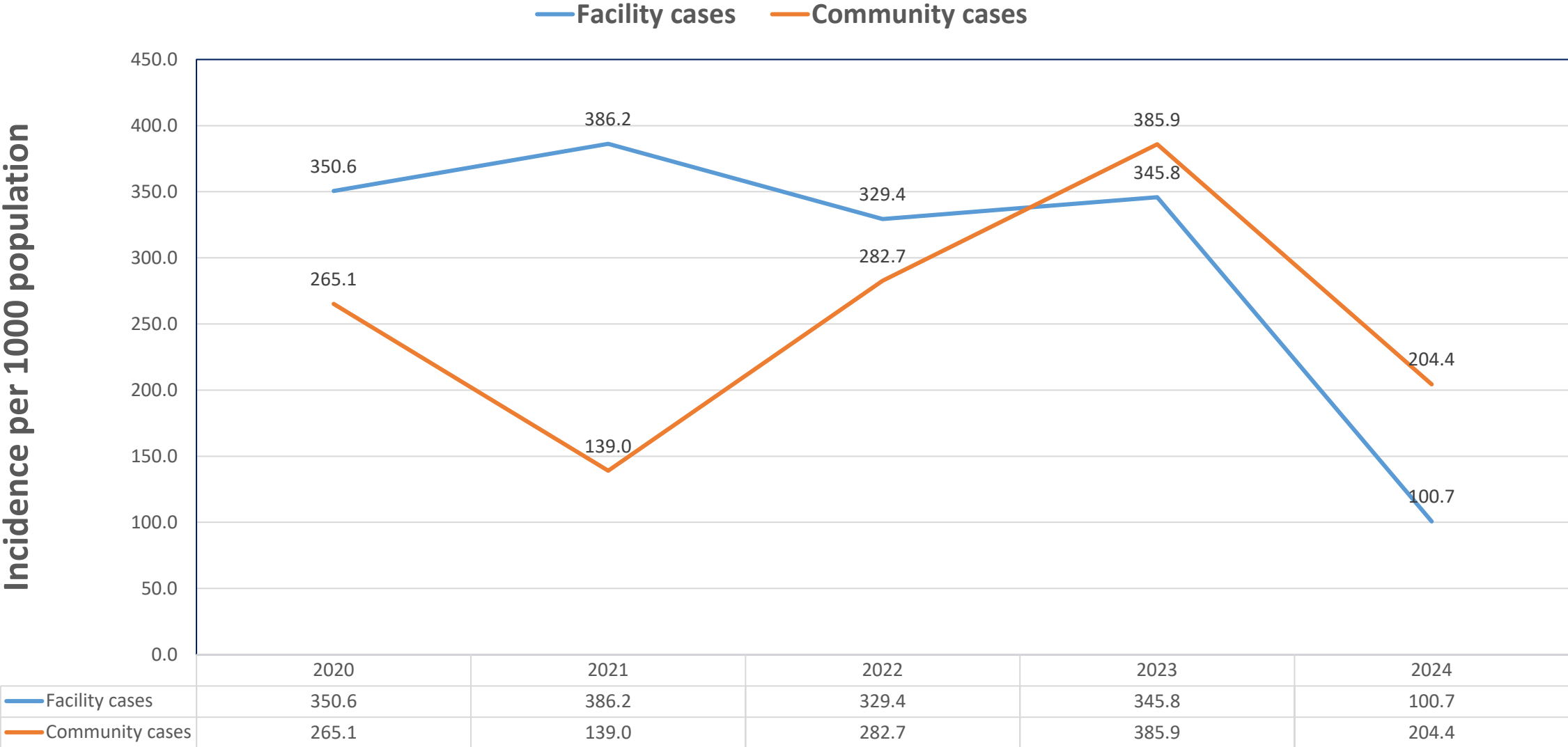
Strata

- High stratum
- Very High stratum

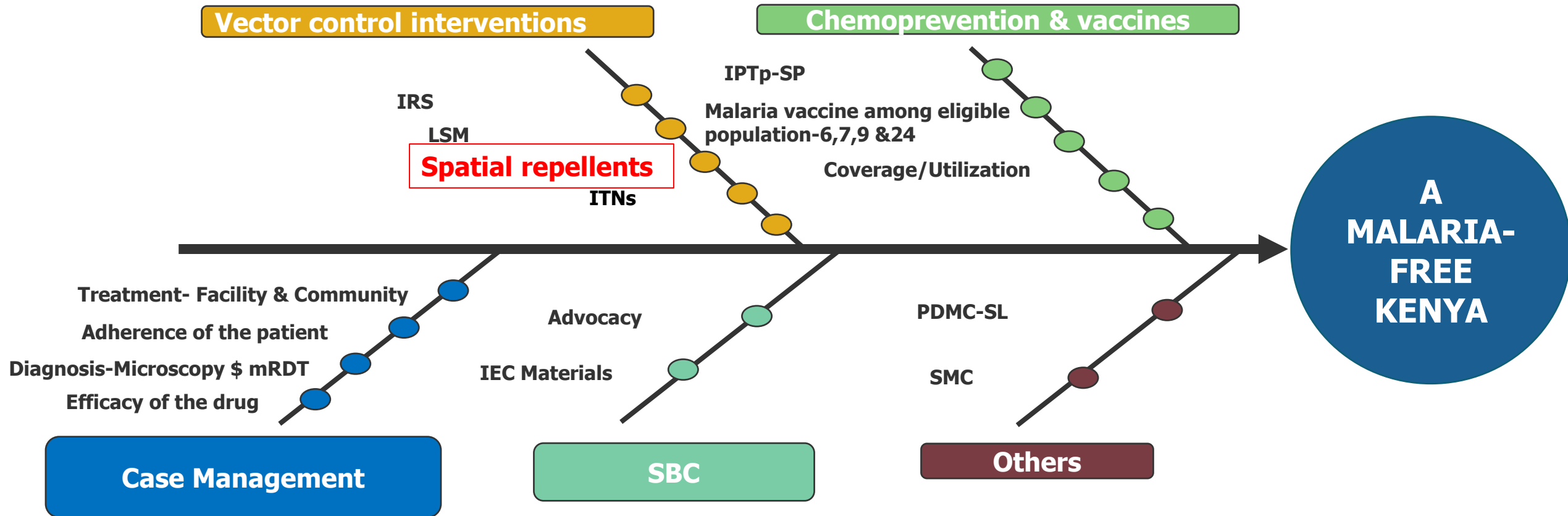
Strata

- very low
- low
- low moderate
- moderate
- high
- very high

# TIME SERIES TRENDS: MALARIA INCIDENCE PER 1000 POPULATION, 2020-2024



# MALARIA CONTROL INTERVENTIONS



# LESSONS LEARNED AND ADVICE FOR DEPLOYMENT



## Lessons Learned

- **SRs as Complementary intervention:** early evening and morning where conventional interventions don't cover
- **Community buy-in, regular monitoring, and a clear plan for product disposal:** devices can be misunderstood or misused *“surveillance device by the Government as reported by one beneficiary in Bunyala, Busia”*

## Advice for Deployment

- **Scale with some evidence:** entomological and epidemiological data to inform deployment decisions
- **Policy alignment:** inclusion of SRs with national malaria strategy, including routine data systems and community programs
- **Evaluate cost-effectiveness:** comparative cost and benefit vs. traditional interventions

# POTENTIAL CHALLENGES

## □ Duration of efficacy:

- Establish monitoring and evaluation plan to evaluate efficacy over time

## □ Myths and misconceptions:

- Illness, or attracts insects rather than repels them
- Infertility
- Surveillance device by the Government

## □ Environmental and structural limitations:

- Continuous improvement of implementation guidance based on local structural considerations
- Disposal and storage



**SOCIETY FOR FAMILY  
HEALTH RWANDA**  
INSPIRING HEALTHIER LIVES

# **PARTNERSHIP FOR MALARIA ERADICATION**



# SFH RWANDA & SC JOHNSON



**Targeting high-incidence areas:  
Rwanda case: Rusizi (Kamembe  
& Gihundwe)**



**Builds on SFH Rwanda's 20+ years  
in malaria prevention & health  
promotion**



**CEO-led R&D commitment: "human  
bait" studies driving mosquito control  
innovations**



**SC Johnson: personal repellents (OFF,  
Baygon) and spatial repellents  
(Mosquito Shield and Guardian)**

# MALARIA'S TOLL – WHY THESE PRODUCTS MATTERS

- ✓ Globally, every minute, a child dies of malaria
- ✓ 50% of outpatient visits in Rwanda linked to malaria
- ✓ Pregnant women & children most at risk
- ✓ Families spend up to 10% of income on treatment
- ✓ Repellents = lifeline → fewer bites = fewer cases, reduced costs, saved lives



# DISTRIBUTION STRATEGY



**From SC Johnson**



**SFH stocks**



**SFH distribute to health posts**



**From Health posts to digital jobs for youth in health, retailers, CHWs**



**Final consumer**





## IMPACT



**298,175 SCJ Mosquito Shields distributed (2022)**  
→ malaria cases fell from 216 → 40 → 30



**Rwanda registration of Mosquito Shield  
and Guardian**

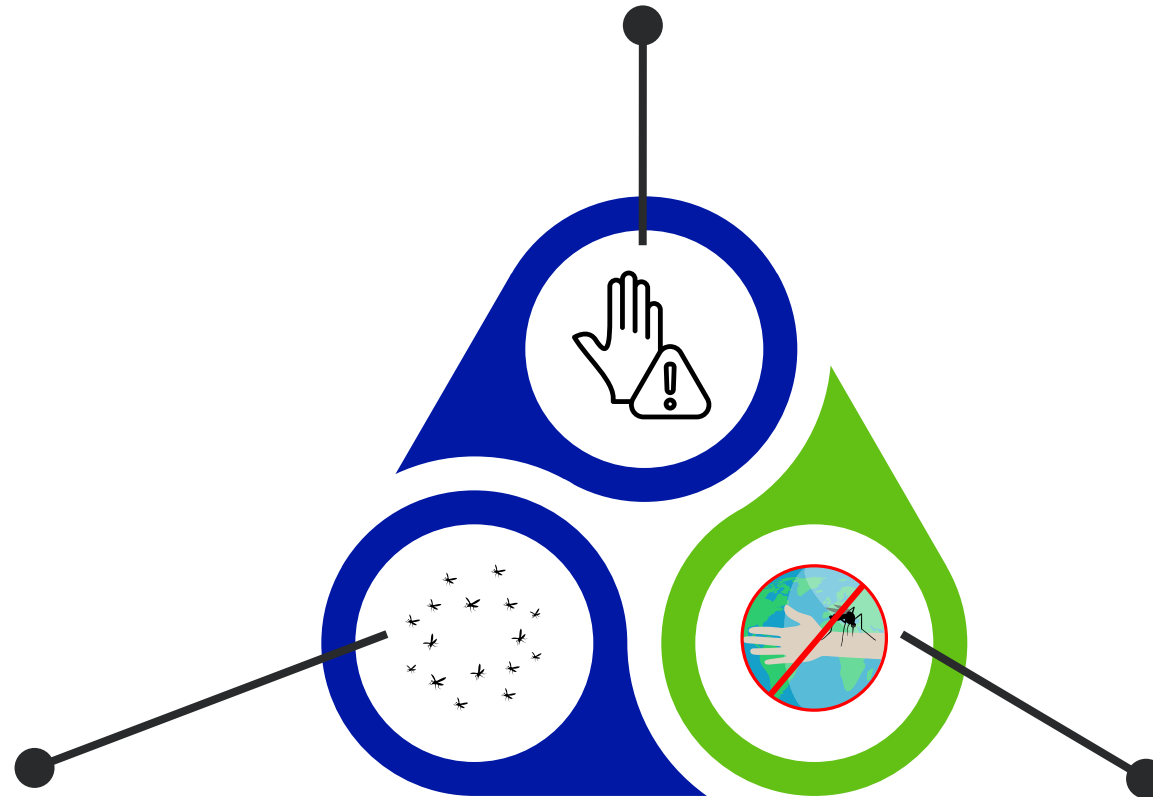


**Spatial Repellents included in *Rwanda  
Malaria Strategic Plan***

# VISION

**Prevention = dignity: affordable, quality and affordable malaria prevention products for all**

**Eradicating malaria “bite by bite, family by family”**



**Cross-cultural innovation for a malaria-free Rwanda and continent**



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# ROLE OF AFRICAN PARLIAMENTARIANS IN SUPPORTING MALARIA ELIMINATION

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Coalition of Parliamentarians to End Malaria in  
Africa (COPEMA)

**Hon. Santa Okot, Co-Chair**

**Hon. Mark Nawaane, Co-Chair**

Moderator: **Greg Walters**



SC Johnson  
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# KEY TAKEAWAYS & NEXT STEPS

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Martin Wamoni

# KEY TAKEAWAYS

## 1. MALARIA IS A SHARED CHALLENGE - AND A SOLVABLE ONE

## 2. NEW TOOLS ARE DESIGNED FOR REAL-LIFE CONDITION

SC Johnson's **Guardian™** and **Mosquito Shield™** are:

**Affordable:** Less than \$0.01 per person/day.

**Effective:** Comparable to vaccines and nets.

**Safe:** Validated for all age groups, including infants.

**Practical:** Easy to deploy, even in remote or open-air homes.

## 3. WHO APPROVAL OPENS THE DOOR FOR ACTION

- Countries have the tools and discretion to **register and deploy faster**.
- With registration, local government and global organization can procure and distribute immediately.
  - **Credibility and safety** are no longer unknowns—they're **strengths**.

## 4. LOCAL OWNERSHIP IS DRIVING IMPACT

- People want **solutions they can trust**.
  - When **communities** are involved, **adoption** grows.
- This is not just a global initiative—it's a **local movement**.

# NEXT STEPS

## 1. ACCELERATE NATIONAL REGISTRATIONS

- **SC Johnson** will **actively engage** Health Ministries and National regulators to **initiate or advance registration**.

## 2. INTEGRATE SPATIAL REPELLENTS INTO NATIONAL STRATEGIES

- **Include** Guardian™ and Mosquito Shield™ in **malaria control plans**.
  - **Align with existing tools** like ITNs, IRS, and vaccines.

## 3. MOBILIZE FUNDING AND PARTNERSHIP

- Champion **domestic budget** allocations.
- **Leverage** support from **private sector, NGOs, government and UN agencies**.

## 4. EDUCATE AND EMPOWER COMMUNITIES

- Launch **behavior change campaigns** to build trust.
- Train **health workers** and **local leaders** as **advocates**.
- **Address myths and misconceptions** with clarity and compassion.



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# CLOSING

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## Ambassador Anthony Okara

Ambassador, African Leaders Malaria Alliance

## Tom Putzer

Head, SCJ Healthier World Initiative



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Healthier World  
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**THANK  
YOU!**