



20 years of vector control innovation and impact

March 2025

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Foreword

20 years ago, IVCC was born with the establishment of its first grant from the Gates Foundation. Today, IVCC is funded by a more diverse range of funders, all of whom are committed to delivering on our mission:

“To improve and save the lives of vulnerable populations impacted by mosquito borne diseases through the delivery of a sustainable toolbox of vector control solutions..”

Thanks to the investment from our funding partners and the expertise developed within IVCC, we have forged collaborations and partnerships across the globe to deliver game changing innovations in vector control. These efforts have played a vital role in improving our collective ability to prevent malaria and saved thousands of lives, primarily among women and children under five, from a disease that still claims over 600,000 lives each year.

As the only Product Development Partnership (PDP) working in vector control, the achievements made over the past 20 years and those that we will continue to make in the future, could not have been delivered without the extraordinary engagement of our partnership network.

I extend my deepest gratitude to all our partners - funders, scientific and policy institutions, industry and advisors - who have been integral in helping us achieve global impact in the fight against malaria. With the continuation of such partnership, I am confident that together we can improve the lives of many and end malaria for good.

Justin McBeath, CEO, IVCC

Insecticide resistance

Data periods: 1978 - 2025

Insecticide class: pyrethroids

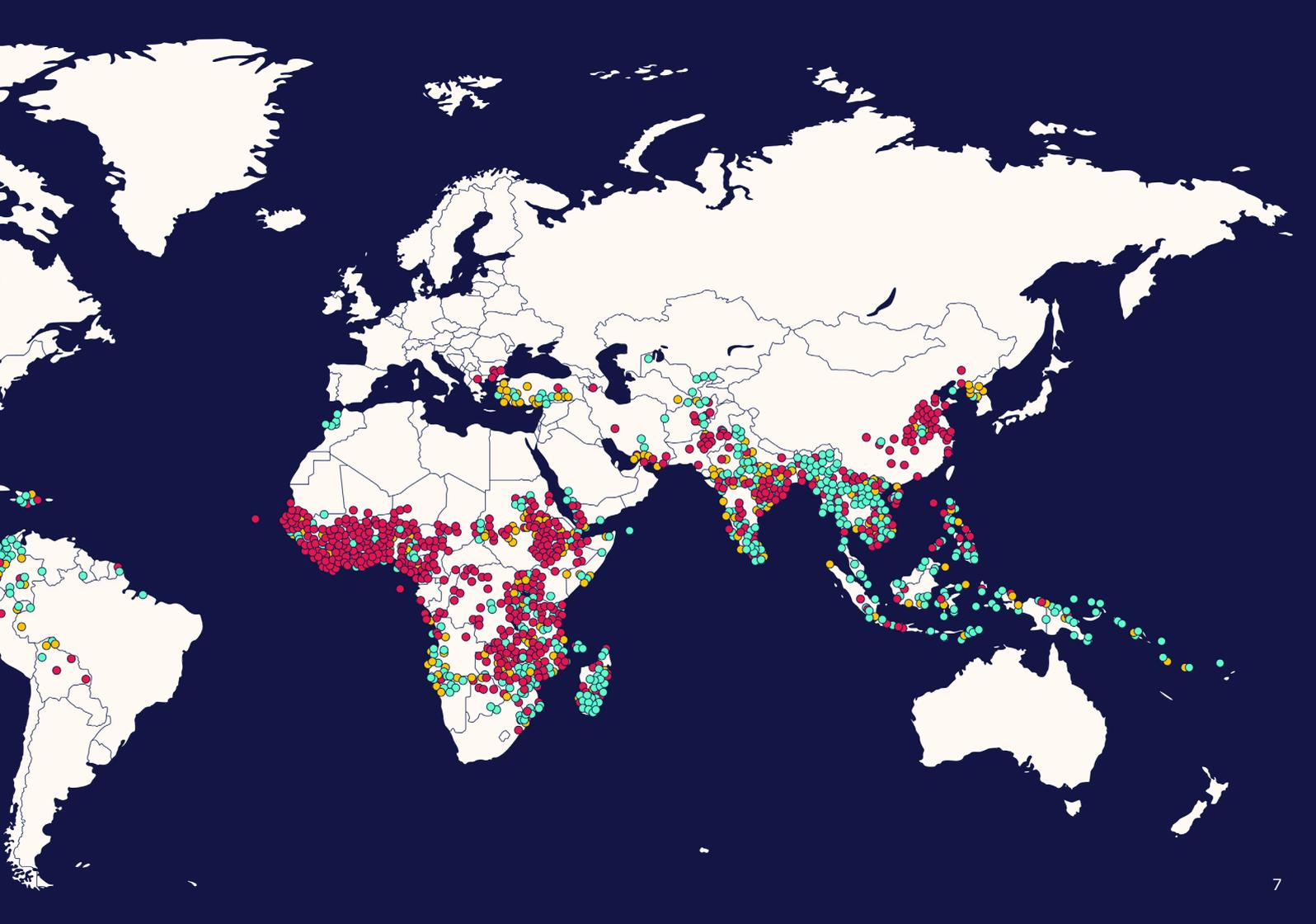
Where vector control has been consistently applied the results have been impressive, with 78% of averted clinical cases of malaria being attributed to insecticide treated nets (ITNs) and Indoor residual spraying (IRS), between 2010-2015. However, the success of vector control tools is threatened by the development and spread of insecticide resistance.

Data source: Malaria Threats Map
<https://apps.who.int/malaria/maps/threats/>

Insecticide resistance status

- Confirmed (0 to <90%)
- Possible (90 to <98%)
- Susceptible ($\geq 98\%$)





IVCC innovation and impact highlights

2010 - 2024

Good Laboratory Practice (GLP) certification

PAMVERC-KCMUCo, Ifakara Health Institute, Centre Suisse de Recherches Scientifiques (CSRS), CREC/LSHTM, Institut Pierre Richet (IPR) VCPEC, Institut de Recherche en Sciences de la Santé/Direction Régionale de l'Ouest (IRSS/DRO) and National Institute for Medical Research (NIMR) Amani Research Centre



IVCC completed the certification of seven African scientific research institutes by the South African National Accreditation System (SANAS). Field trials facilities in Africa play an essential role in evaluating novel vector control products being developed by IVCC partners. The generation of reliable data through GLP compliant field trials is critical for establishing the true performance of the products being tested.

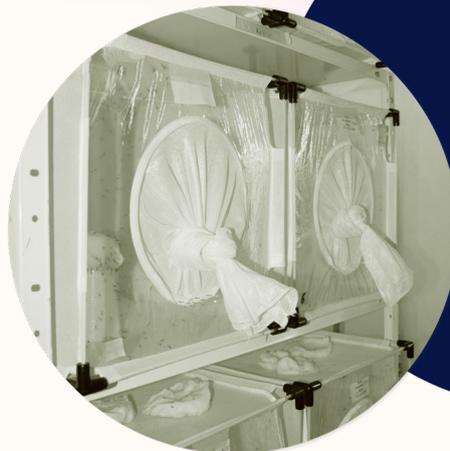
2013



Actellic[®] 300CS

Syngenta

Syngenta and IVCC collaboration delivered a new long-lasting insecticide formulation, Actellic[®] 300CS. Actellic achieved a formal recommendation for use from the World Health Organization Pesticide Evaluation Scheme (WHOPES) in 2013.



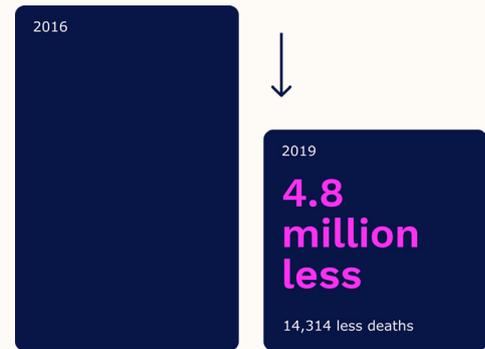
2016 - 2020



NgenIRS

Unitaid (funding partners), PATH, Abt Associates, The Global Fund, PMI, 16 African National Malaria Elimination Programmes, and three insecticide manufacturers

The NgenIRS programme reversed the downward trend in IRS use with the resulting expansion delivering significant public health impact, savings in commodity costs and new evidence to show the cost-effectiveness of third generation IRS (3GIRS). The project contributed to averting an additional 4.8 million malaria cases and 14,314 deaths from 2016 through 2019 and (correctly) projected that this impact would more than double over the next five years.



Malaria cases

2018 - 2022



New Nets Project

Unitaid and The Global Fund (funding partners), Gates Foundation, MedAccess (supporting partners), The Alliance for Malaria Prevention (AMP), Imperial College London, Liverpool School of Tropical Medicine (LSTM), London School of Hygiene and Tropical Medicine (LSHTM), PATH, PSI, and Tulane University (implementation partners)

The NNP programme supported the introduction of 56 million state-of-the-art mosquito nets in 17 countries across sub-Saharan Africa averting an estimated 13 million malaria cases and 24,600 deaths compared to pyrethroid-only nets.

56

million

state-of-the-art
mosquito nets

17

countries

across sub-Saharan
Africa

13

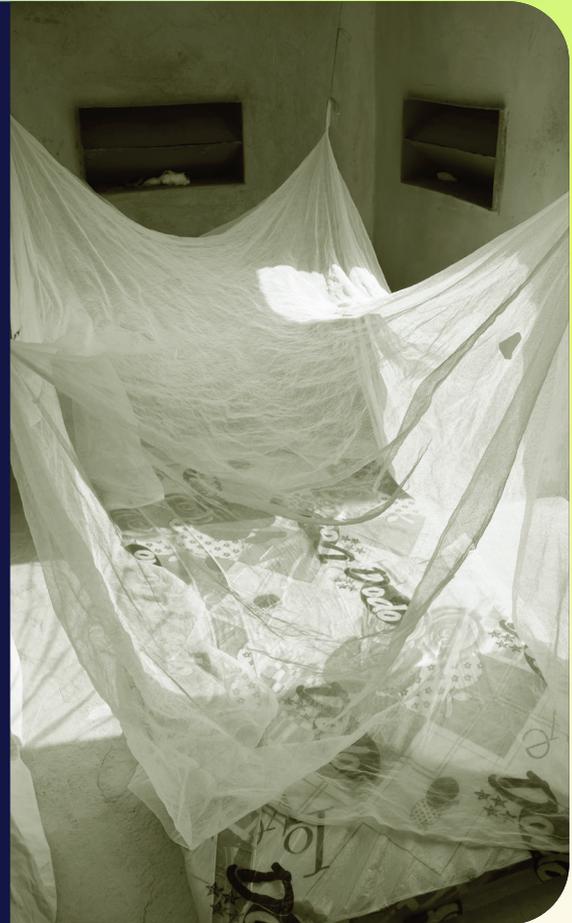
million

malaria cases
averted

24+

thousand

malaria deaths
averted



2018

BASF

We create chemistry

Interceptor® G2

BASF

WHO Pre-Qualification of BASF's Interceptor® G2. In partnership with IVCC, BASF developed the first dual-active ingredient insecticide treated net (ITN) and the first new class of chemistry for use on an ITN in more than 30 years.



1st

dual-active
ingredient ITN
to obtain a WHO
PQ listing

2019

envu™

Fludora® Fusion

"Envu (formerly Bayer Crop Science)"

WHO Pre-Qualification of Envu's Fludora® Fusion. IVCC supported the development of this new indoor residual spray (IRS) in field trials where the product was tested against various resistant mosquito strains and on different relevant surface types.

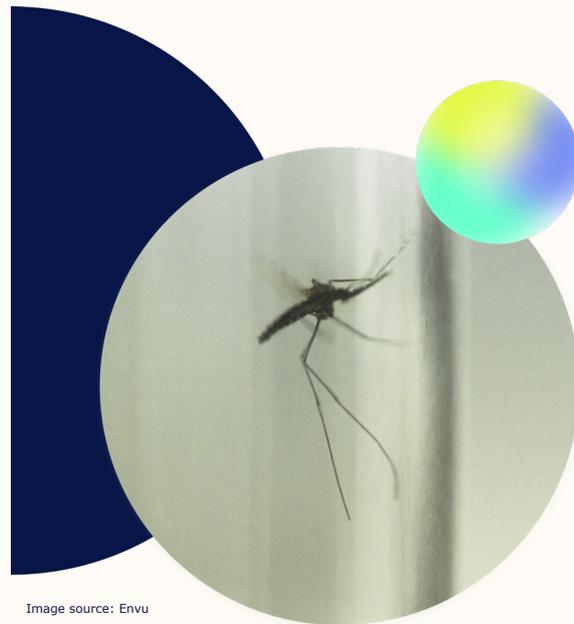


Image source: Envu

2019



SumiShield® 50WG

Sumitomo Chemical

SumiShield® 50WG is prequalified by the World Health Organization (WHO) and was the first mode of action IRS in 40 years. With a brand-new mode of action chemistry for indoor residual spraying (IRS), SumiShield® 50WG represented a significant breakthrough, providing a new tool to allow program managers to manage resistance. IVCC supported Sumitomo Chemical by providing scientific advice, laboratory support as well as leading rigorous field trials to prove SumiShield® 50WG's efficacy.



2019 - 2023

NAT NAT entomological facility

Papua New Guinea Institute of Medical Research (PNGIMR), National Department of Health (NDoH), Madang Provincial Health Authority, Burnet Institute, James Cook University (JCU) and Rotarians Against Malaria (RAM)

The NATNAT programme (Newly Adapted Tools Network Against vector-borne disease Transmission) has been funded by IVCC since 2019 through funds from Australia's Department for Foreign Affairs and Trade (DFAT) with: by the Australian Government through Partnerships for a Healthy Region. NATNAT has built capacity in Papua New Guinea (PNG) for the rapid evaluation and adoption of new vector control tools. The newly developed site consists of a laboratory, insectary, and a semi-field tunnel system with an experimental hut system completed in 2023.



2019 - 2023

IPI – BITE

UCSF-Malaria Elimination Initiative

Completion of feasibility study which has pioneered an approach to evaluate novel vector control products. Semi-field results from Project BITE under IVCC's Indo-Pacific Initiative (IPI) have shown that forest packs containing bite prevention tools could have an impact on public health beyond just personal protection. The results come from trials that University of California, San Francisco (UCSF) - Malaria Elimination Initiative, IVCC's lead partner on BITE, conducted at AFRIMS (Armed Forces Research Institute of Medical Sciences) and Kasetsart University in Thailand.



Since 2020

New Routes to Market

Private sector organisations across Africa



To help address the immediate challenges with IRS, and longer-term concerns about ensuring equitable access to other vector control tools, IVCC began working with a handful of high-burden partner countries (e.g., Ghana, Nigeria and Uganda) on the New Routes to market (NRtM) initiative to identify new funding streams and delivery channels for vector control tools through public/private partnership.

Since the launch of the initiative in 2020, this country-led effort has begun to demonstrate its potential attracting the interest of at least 10 other countries and their development partners. As a result, IVCC has developed formal relationships with Clinton Health Access Initiative (CHAI), Management Sciences for Health (MSH) and Mentor initiative, and they are all contributing to help NMEPs across Africa to effectively engage with the private sector to scale up locally led and financed vector control.

2023

VECTRON™ T500

Mitsui Chemicals Crop & Life Solutions, Inc.

VECTRON™ T500 represents the world's first active ingredient classified in IRAC Group 30 (meta-diamide), with a different mode of action from existing vector control products.



1st

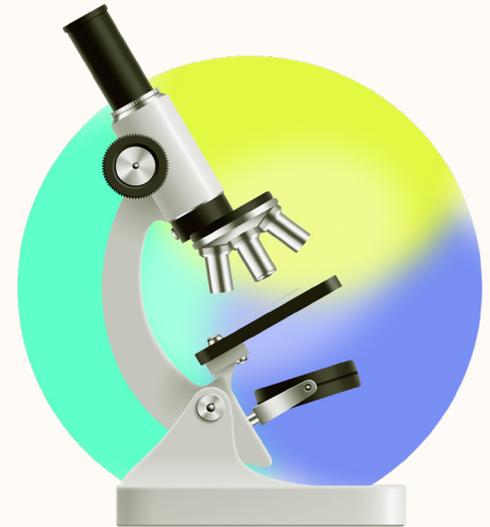
meta-diamide
active ingredient
(IRAC Group 30)

2023

VERV

Duke Global Health Institute and Environmental Protection Agency (EPA)

IVCC championed the establishment of the regulation for a Vector Expedited Review Voucher (VERV) Program which came into US law in December 2023. The VERV rewards the registrant of a new public health insecticide with a voucher to receive an expedited registration review of a second, potentially more profitable product. Getting the second product to market faster generates value for the manufacturer which helps mitigate the investment costs typical in public health insecticide development. A registrant can also sell the awarded voucher.



Thank You

Thank you to our generous funders,
whose partnership makes life-saving
vector control possible.

Gates Foundation

Gates Foundation

The Gates Foundation and IVCC are a long-standing partnership. The foundation works to tackle critical problems worldwide through building partnerships across the globe. The Global Development Division seeks to help the world's poorest people help themselves in alleviating hunger and poverty, harnessing advances in science and technology to save lives in poverty-stricken areas in the world. The foundation emphasizes collaboration, innovation, risk-taking, and results, which fits precisely with IVCC's mission and achievements. The foundation recognized the urgent need for new vector control tools to fight malaria and other insect-borne diseases and supported the establishment of IVCC as a product development partnership to make it happen.



UKAid

UKAid is the public face of the Foreign, Commonwealth, and Development Office (FCDO), which is the UK government department with a mission to promote sustainable development and eliminate world poverty. FCDO aims to halve the number of people living in extreme poverty and hunger, combat HIV, AIDS, malaria, and various other diseases, and build partnerships across the world to support development. FCDO's partnership with IVCC has provided a substantial boost to the practical task of developing effective vector control approaches, such as insecticidal treated nets, that have substantially reduced child and maternal deaths and the overall incidence and death rate from malaria.



Australian Aid

The Australian Government's Health Security Initiative for the Indo-Pacific region, launched by the Minister for Foreign Affairs on 8 October 2017, contributes to the avoidance and containment of infectious disease threats with the potential to cause social and economic harms on a national, regional, or global scale. With funding of AU\$300 million over five years from 2017, the Health Security Initiative aims to inform evidence-based planning, help prevent avoidable epidemics, strengthen early detection capacity, and support rapid, effective national and international outbreak responses.



Unitaid

Unitaid is engaged in finding new ways to prevent, treat, and diagnose HIV/AIDS, tuberculosis, and malaria more quickly, affordably, and effectively. It turns game-changing ideas into practical solutions that can help accelerate the end of the three diseases. Established in 2006 by Brazil, Chile, France, Norway, and the UK to provide an innovative approach to global health, Unitaid plays an important part in the global effort to defeat HIV/AIDS, tuberculosis, and malaria, by facilitating and speeding up the availability of improved health tools, including medicines and diagnostics. Unitaid has funded the IVCC NgenIRS and New Nets Programme (NNP) market intervention programs to address factors hindering wide-scale use of new resistance-breaking insecticides.



Swiss Agency for Development and Cooperation (SDC)

The Swiss Agency for Development and Cooperation (SDC) is Switzerland's international cooperation agency. SDC's humanitarian aid seeks to reduce global poverty through a variety of methods. This is promoted through fostering economic self-reliance and state autonomies, finding solutions to environment problems, problems in regard to access to education and basic healthcare, and enabling access to resources and services to the greatest number of people. SDC's support to IVCC acknowledges that many of the poorest countries in the world suffer from endemic malaria, which not only kills and incapacitates large numbers of people but also seriously damages economic development.



The Global Fund

The Global Fund is a 21st-century partnership organization designed to accelerate the end of AIDS, tuberculosis, and malaria as epidemics. Founded in 2002, the Global Fund is a partnership between governments, civil society, the private sector, and people affected by the diseases. The Global Fund raises and invests nearly US\$4 billion a year to support programs run by local experts in countries and communities most in need.



Clinton Health Access Initiative

IVCC's work on global forecasts for malaria commodities is supported by the Clinton Health Access Initiative.



MedAccess

IVCC would also like to acknowledge additional NNP funding support provided by MedAccess.

