

Fighting Malaria

GRI Standards:

416-1, 416-2: Customer Health and Safety

EXECUTIVE SUMMARY

Malaria is a complex disease and requires many different types of expertise to roll it up all over the world. Sanofi's malaria control and elimination strategy supports the WHO's vision for a malaria-free world by 2030.

Despite significant multisectoral efforts, malaria remains a challenge in many endemic countries. For decades, Sanofi has played a key role in fighting malaria in low and middle-income countries with a comprehensive range of drugs and efficient disease awareness programs.

Concretely, Sanofi:

- continues to provide an hemi-synthetic quality assured artemisinin combination therapy (ACT) with a sustainable pricing and safety stock for all patients with uncomplicated *Plasmodium falciparum* malaria infection;
- strengthens disease awareness programmatic efforts with innovative digital technologies well-adapted to today's society and new generations.

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1. A global public health challenge

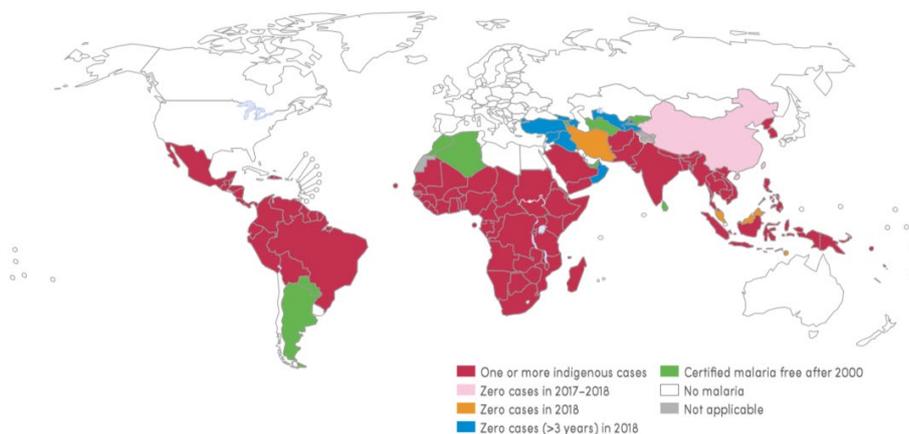
Malaria is a parasitic disease transmitted to humans through the bite of the *Anopheles* mosquito. The *Plasmodium* parasite colonizes and destroys red blood cells, causing malaria attacks with the sudden onset of fever, fatigue, headache, shivering, vomiting, etc. Attacks may be very serious, leading to severe anemia, convulsions, coma, permanent damage, and even death.

In the last 15 years, unprecedented resources have been committed to improving the coverage of preventive and curative interventions among malaria-affected communities. The R&D community has studied malaria in depth as a disease, its causes, its disease processes, its transmission, and the interventions that are needed to prevent and treat it. This has brought tremendous positive results. Malaria case incidence (i.e. cases per 1,000 population at risk) reduced from 80 in 2000 to 58 in 2015 and 57 in 2019 globally. Between 2000 and 2015, global malaria case incidence declined by 27%, and between 2015 and 2019 it declined by less than 2%, indicating a slowing of the rate of decline since 2015 ⁽¹⁾.

In 2020, there were an estimated 241 million malaria cases in 85 malaria endemic countries. In 2020, malaria deaths increased by 12% compared with 2019, to an estimated 627,000; an estimated 47,000 (68%) of the additional 69,000 deaths were due to service disruptions during the COVID-19 pandemic. Twenty-nine countries accounted for 96% of malaria cases globally, and six countries – Nigeria (27%), the Democratic Republic of the Congo (12%), Uganda (5%), Mozambique (4%), Angola (3.4%) and Burkina Faso (3.4%) – accounted for about 55% of all cases globally.

2. Sanofi Global Health

Active since the 1930s in the research, production and distribution of anti-malarial drugs, Sanofi created a malaria program within its Global Health Department in 2001, strengthening Sanofi's role as a major player in the fight against malaria.



For more information about malaria, see:

- [WHO, *Malaria annual report 2021*](#)
- [Global Malaria Threat Mapper](#)

By mobilizing Sanofi's resources in support of our partners (health authorities, ministries, non-governmental organizations, experts, communities, and universities), Sanofi Global Health is stepping up by committing to:

¹ World Malaria report 2020

- continue to provide the only hemi-synthetic quality assured artemisinin combination therapy (ACT) with a sustainable pricing and safety stock for all patients with uncomplicated *Plasmodium falciparum* malaria infection;
- make available for all disease awareness programmatic efforts with innovative digital technologies well-adapted to today's society and new generations.

3. Malaria initiatives

Sanofi supports a holistic approach to defeat malaria, for the appropriate prevention, diagnosis and treatment of the disease. Many different stakeholders must be involved to achieve success: scientific experts, National Malaria Control Programs (NMCPs), doctors, field nurses, community health workers, logisticians, teachers, and communities.

Targets and activities

Educational printed and digital materials developed by Sanofi Global Health are provided to public health authorities and non-governmental organizations (NGOs), so that they can be adapted to fit the specific characteristics of each country, and used in the field by legitimate stakeholders (public officials, NGOs, school teachers, etc.). Innovative digital materials offer the opportunity for a broader dissemination using social network and TV channels.

3.1. ASAQ WINTHROP®, AN AFFORDABLE, HIGH-QUALITY ANTI-MALARIAL MEDICINE

Artesunate Amodiaquine Winthrop® (ASAQ) is an anti-malarial medicine developed by Sanofi and Drugs for Neglected Diseases *initiative* (DNDi).

ASAQ Winthrop® is a hemi-synthetic quality assured artemisinin combination therapy (ACT) particularly adapted to the needs of African patients, especially children, who are most vulnerable to malaria. Dosing is simple: one or two tablets once a day, depending on weight and age. This ease of use contributes to better patient compliance and helps reduce the risk of drug resistance.

This drug is manufactured in Morocco and is registered in most sub-Saharan African countries. Being pre-qualified by the WHO for 13 years with a recent renewal, ASAQ Winthrop® is accessible to major international programs, such as the Global Fund, UNICEF, and the President's Malaria Initiative.

To ensure its accessibility, ASAQ Winthrop® is sold according to adapted policies consistent with applicable laws to public organizations (such as governments, NGOs, and international funders). The price, which was set by Sanofi and DNDi when ASAQ Winthrop® was first launched, at less than one dollar to treat an adult and 50 cents to treat a child, has become the standard reference price for new anti-malarial drugs.

To date, more than 540 million treatments have been distributed, mainly in Sub-Saharan Africa.

3.2. PROMOTING BEHAVIOR COMMUNICATION FOR CHANGE WITH CHILDREN

Children are the primary victims of malaria, and they are also the adults of tomorrow. Educating them is an essential part of the fight against malaria. It is difficult to estimate the total number of people reached indirectly through such an initiative, since knowledge dissemination can take many different forms.

The overall program is called Schoolchildren against Malaria program. This program aimed to use schoolchildren as change agents to lead to individual behavior change and engage the community in the fight against malaria. See video: [Niger – French version](#); [Niger – English version](#).

Three years ago, Sanofi took the opportunity of new technologies to initiate digital solutions development and to complete the range of tools for children and significantly increase the population reached by prevention messages on malaria. Those innovative materials are available on YouTube or on the web. In addition, these digital tools were disseminated proactively through a YouTube campaign in eight African countries (Burundi, DRC, Tanzania, Ivory Coast, Madagascar, Senegal, Ghana, and Cameroon) and various TV programs late 2020. Such dissemination significantly increased the number of people reached. Such digital campaign generated more than 70,000 views/country, more than 270,000 people have shown 50 to 100% of the Flash malaria, more than 36,000 clicks have been done by the audience to be redirected to the Moski cartoon and more than 1.9 million (37%) showed engagement (like/share).



3.2.1. Moski® Toon

Building on the success of the MOSKI KIT®, Sanofi has expanded its range of youth-oriented tools with a didactic cartoon called MOSKI® TOON. This new awareness tool focusses on a boy who teaches his young cousin about the various methods for prevention and management of malaria, Its impact on children's malaria knowledge attitudes and practices has been evaluated through a dedicated Knowledge Attitudes Practices (KAP) study in December 2016, on 410 children from seven to 12 years old, in a mix of urban and rural households in Cote d'Ivoire and Kenya with IPSOS.

This cartoon available in French or English allowed children to acquire a better level of knowledge on the disease. It also encouraged them to change their behaviors regarding malaria, and to convince their relatives to do the same.

See Moski® toon:

- [cartoon – French version](#)
- [cartoon – English version](#)

3.2.2. Flash Malaria

The Flash Malaria videos pursue Sanofi's range of Moski® edutainment digital tools to raise malaria awareness. Their noticeably short duration (about 35 seconds) is perfectly adapted to social media. These eight episodes are available in French and English with subtitles and can be watched successively or on a regular basis.

The aim is to disseminate simple and short key messages related to prevention, environment, and management of malaria via social media to increase the reach in malaria endemic-countries.

- *See Flash Palu (French versions):*

#1: *La moustiquaire:* <https://m.youtube.com/watch?v=xNYLT58NesE&feature=youtu.be>

#2: *Le grillage:* <https://m.youtube.com/watch?v=r2LTaqr8Mx0&feature=youtu.be>

#3: *L'environnement:* https://m.youtube.com/watch?v=FX_vqXmRvKY&feature=youtu.be

- #4: *Les insecticides*: <https://m.youtube.com/watch?v=oSUI5NjI4U&feature=youtu.be>
- #5: *La femme enceinte*: [Sanofi – Flash paludisme 5 – La femme enceinte - YouTube](#)
- #6: *Le diagnostic*: <https://m.youtube.com/watch?v=VtGYCD-9d4A&feature=youtu.be>
- #7: *Les médicaments*: <https://m.youtube.com/watch?v=HCo1WNFTAic&feature=youtu.be>
- #8: *Sept messages de prévention contre le paludisme*: [Sanofi – Flash paludisme – 7 messages clés - YouTube](#)

- See *Flash Malaria (English versions)*:

- #1: *The mosquito net*: https://m.youtube.com/watch?v=fjf3rb5LF_k&feature=youtu.be
- #2: *The wire mesh*: <https://m.youtube.com/watch?v=y42lZByh1cw&feature=youtu.be>
- #3: *The environment*: <https://m.youtube.com/watch?v=i78nJM7xWQY&feature=youtu.be>
- #4: *The insecticide*: <https://m.youtube.com/watch?v=SWMXVDHXC08&feature=youtu.be>
- #5: *Pregnant women*: [Sanofi – Flash malaria 5 – Pregnant women - YouTube](#)
- #6: *The diagnostic*: <https://m.youtube.com/watch?v=Zz2gOEPWLKc&feature=youtu.be>
- #7: *The medicines*: <https://m.youtube.com/watch?v=w26Qyd5Yjro&feature=youtu.be>
- #8: *Seven ways to prevent malaria*: [Sanofi – Flash malaria – 7 key-messages - YouTube](#)

3.2.3. Moski® Memory

The latest birth in Sanofi educational tools is Moski®, which aims to raise malaria awareness among children. Moski® Memory is a Progressive Web App (PWA) to be played from any computer, tablet or mobile phone. Gamers can choose to play online or offline, in French, English, Portuguese or Swahili.

[Let's play with the Editorial MOSKI MEMORY game \(moski-memory.com\)](http://moski-memory.com)

The objective of the game is to progress as quickly as possible in the three levels of play by finding the cards which allow to form “do’s / don’ts” pairs. At the end of each level, an illustrated questionnaire allows to win virtual badges and move forward in the game.

Each key malaria prevention message is linked to specific drawings forming a pair and showing do’s and don’ts. Through this game, players will learn and memorize key messages related to prevention, environment and management of malaria while having fun. It is hoped that players will become ambassadors of the fight against malaria to share their knowledge with their relatives and communities.

4. Awards

In 2015, the Chinese scientist Youyou Tu was awarded the Nobel Prize in Physiology or Medicine for the discovery of artemisinin and her role in creating a drug that helped slash malaria mortality rates in Africa and Asia, saving millions of lives.

In April 2015, at the White House, Sanofi received the prestigious Patent for Humanity award from the United States Patent and Trademark Office (USPTO) in recognition of its semi-synthetic artemisinin. This approach seeks to guarantee a constant supply of raw materials for the reliable production of quality medicines at a stable price. The award attests to Sanofi’s commitment to public-private partnerships. In 2016, the Moski Kit® received the [first prize](#) in the Most Valuable Patient Initiative or Service Award at Eye for pharma Barcelona Awards.

In 2017, Moski Toon®, the educational cartoon, has been nominated for the 2018 Eye for pharma Awards for the Most Valuable Patient Initiative category.

In 2020, Flash Malaria and Moski Memory, the newly developed flashes for social media and digital game received the award in the education category at the International Society of Neglected Tropical Diseases (ISNTD) festival.