

# MALARIA IN EMERGENCIES AND HUMANITARIAN SETTINGS

## BACKGROUND

Malaria continues to have a negative impact on vulnerable populations living in fragile settings. Children under the age of five comprise **67 per cent of all malaria mortality, accounting for at least 274,000 deaths every year.**<sup>1</sup> Thus, this vector-borne disease is the **fourth leading cause of under-five mortality,**<sup>2</sup> behind neonatal complications, pneumonia and diarrhoea.

Notably, the global malaria burden **has fallen over the last two decades**<sup>3</sup> from an incidence of 80 cases per 1,000 population and 736,000 deaths in 2000, to an incidence of 56 per 1000 and 409,000 deaths in 2019. These figures have been achieved thanks to activities such as use of insecticide-treated nets (ITN), chemoprophylaxis, prompt diagnosis, and access to artemisinin-based combination therapy (ACT). However, the situation is still worrisome: today, every two minutes a child dies from malaria and **gains in reducing the incidence of the disease have shown a trend towards stagnation** in recent years.<sup>4</sup>

Pregnant women are at high risk of complications due to malaria, as the infection can lead to **anaemia, premature birth, maternal mortality, stillbirth and intrauterine**

**growth restriction.**<sup>5</sup> In 2019, of the 35 million pregnant women in the Sub-Saharan African region, more **than a third were exposed to malaria and 822,000 neonates were low-birth weight** as a consequence of this infection.<sup>6</sup>

Sub-Saharan Africa accounts **for 94 per cent of all cases and deaths** from malaria, and there are signs that progress in burden reduction is slowing.<sup>7</sup> In 2017, the 10 countries with the highest malaria burden reported 3.5 million additional cases compared to 2016. Moreover, projections conducted by the World Health Organization (WHO) indicate that key goals from the WHO Global Technical Strategy (GTS) for Malaria 2016-2030 will not be achieved under current trends; for example, the current malaria incidence is **56 cases per 1,000 people, far exceeding the 2020 target of 35 cases per 1,000.**<sup>8</sup>

As a partner of **“the high burden to high impact” (HBHI)** initiative,<sup>9</sup> UNICEF is supporting the HBHI goal to catalyse global efforts and revitalize the agenda on malaria, focusing on activities such as fostering political will, strategic information, better guidance, and coordinated national responses that encompass the 11 countries that account for 70 per cent of the world malaria burden.

## MALARIA IN HUMANITARIAN SETTINGS

People in humanitarian settings, children and pregnant women in particular, are at high risk of ill health, including infectious and vector-borne disease. In such settings poor water and sanitation and lack of proper housing encourage vector-breeding sites, and thus higher exposure to anopheles and other mosquitoes. Factors such as displacement, destruction of infrastructure, violence, scarce health care personnel, disruption of supply chains, socioeconomic vulnerability and additional malarial **complications due to malnutrition**<sup>10</sup> reduce access to medical care. In turn, these situations worsen the disruption of and limit access to preventive strategies such as ITNs, diagnostic tools and malarial treatment.

In addition, many of the malaria-endemic countries with highest case loads and mortality burden are also countries that face humanitarian situations: of the **seven countries that account for half of the global cases and mortality**,<sup>11</sup> **six are considered humanitarian-context countries**.<sup>12</sup> Thus, in order to achieve the Sustainable Development Goal (SDG) to end malaria and the WHO GTS for Malaria 2016-2030, it is fundamental to heavily invest in a coordinated and multisectoral approach to improve health and well-being services, and address programming bottlenecks in humanitarian settings.

## THE COVID-19 CONTEXT

An additional and emerging factor that has hindered efforts to advance the agenda on malaria is COVID-19. The indirect effect of the pandemic has disrupted the provision of health care services, with an impact on malaria's prevention, diagnosis and treatment, leading to a likely excess in mortality. According to some estimates based on models, a disruption of just **25 per cent in antimalarial drug coverage could lead to an additional 100,000 deaths in Sub-Saharan Africa alone**.<sup>13</sup> If disruptions in access to malaria case management grow more significant, projections indicate that the current number of deaths could double, setting the world back 20 years and destroying all the progress made to date.

## UNICEF'S RESPONSE

The UNICEF response to malaria is aligned with the **malaria global strategy**<sup>14</sup> and encompasses complementary approaches such as including malaria programming in primary health care (PHC) services via integrated community case management and integrated management of childhood illness; vector control via provision of ITNs; indoor residual spraying, which enhances the overall vector-control strategy; prompt diagnosis via microscopy; the procurement and distribution of rapid diagnostic tests; promotion

of care-seeking behaviour in communities when children present febrile syndromes in malaria endemic areas; support of referrals when children may need additional care; provision of chemoprophylaxis to high-risk populations living in endemic areas, including intermittent preventive treatment in pregnancy and seasonal malaria chemoprevention for children under five years old; and provision of malaria treatment using ACT. The response also includes fostering multisectoral collaboration in areas such as water, sanitation and hygiene (WASH); communications and nutrition to improve the living conditions of those who are vulnerable; and conducting implementation research to both improve the impact of interventions and document lessons learned that could inform and strengthen evidence-based strategies.

## THE WAY FORWARD

For the malaria agenda to advance, the international community along with national governments should continue to foster leadership to prevent and treat malaria; invest in monitoring and surveillance; innovate to overcome issues such as drug- and insecticide-resistance and advance vaccination pilot programmes. In addition, work is needed on policies to prevent and mitigate climate change to halt the geographical expansion of mosquitoes and vectors; fully integrate malaria programming in PHC; and increase coverage of health services in fragile, vulnerable and high-burden populations and countries.

## GEOGRAPHIC AREAS OF INTEREST

In 2019, 29 countries accounted for 95 per cent of the global malaria cases. Nigeria (27 per cent), Democratic Republic of Congo (12 per cent), Uganda (5 per cent), Mozambique (4 per cent) and Niger (3 per cent) together accounted for half of all cases. Malaria mortality follows a similar pattern: Nigeria (23 per cent), the Democratic Republic of the Congo (11 per cent), Tanzania (5 per cent), Mozambique (4 per cent), Niger (4 per cent) and Burkina Faso (4 per cent) account for 51 per cent of malaria deaths worldwide. These countries, along with Cameroon, Mali, Ghana and India, comprise the 11 nations that support the **HBHI** initiative to revitalize the fight against malaria.<sup>15</sup>

## THE GAP

It is estimated that the direct cost of malaria only in Sub-Saharan Africa is **US\$12 billion each year, costing the continent around 1.3 per cent of its gross domestic product (GDP)**.<sup>16</sup> Despite continuous support of the international community, led by the Global Fund and supported by WHO, UNICEF, national governments and other relevant stakeholders, the funds devoted to tackle malaria are clearly insufficient. Globally in 2019, it was estimated that **US\$5.6 billion were necessary for malaria treatment and control, but only US\$3 billion were available**.<sup>17</sup>



Moreover, the COVID-19 pandemic has put considerable financial strain on the health sector, including malaria programming. Thus, in 2020, UNICEF appealed for **US\$1.93 billion to address COVID-19-related needs, with a gap at the end of the year of 39 per cent.**<sup>18</sup> In 2021, the estimated funding for UNICEF to cover the multisectoral needs of children in humanitarian

settings and respond to the pandemic is US\$6.4 billion. From this total, US\$704 million will be devoted to health needs, to ensure the continuation of essential maternal and child services, including malaria programmes. These activities are under jeopardy given both their disruption due to the COVID-19 pandemic and the possible rerouting of resources to tackle the direct impact of the virus.



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- <sup>1</sup> World Health Organization (WHO), 'Malaria', Fact sheet, <<https://www.who.int/news-room/fact-sheets/detail/malaria>>, accessed 15 January 2021.
- <sup>2</sup> United Nations Children's Fund (UNICEF), 'UNICEF data: Under-five mortality', <<https://data.unicef.org/topic/child-survival/under-five-mortality/#:~:text=Sub-Saharan%20Africa%20continues%20to,born%20in%20high-income%20countries.>> accessed 15 January 2021.
- <sup>3</sup> WHO, 'World malaria report 2020: 20 years of global progress and challenges', Geneva, World Health Organization, 2020.
- <sup>4</sup> Ibid
- <sup>5</sup> Schantz-Dunn, Julianna and Nawal Nour, 'Malaria and pregnancy: A global health perspective', *Reviews in Obstetrics and Gynecology* vol 2 no 3, Summer 2009, p 186-192.
- <sup>6</sup> WHO, 'World malaria report 2020: 20 years of global progress and challenges', Geneva, World Health Organization, 2020.
- <sup>7</sup> WHO, 'Malaria', Fact sheet, <<https://www.who.int/news-room/fact-sheets/detail/malaria>>, accessed 15 January 2021.
- <sup>8</sup> WHO, 'World malaria report 2020: Global messaging', Briefing kit, Geneva, World Health Organization, 30 November 2020.
- <sup>9</sup> WHO, RBM Partnership To End Malaria, 'High burden to high impact: A targeted malaria response', 2019.
- <sup>10</sup> Das, Grais, Okiro et al, 'Complex interactions between malaria and malnutrition: a systemic literature review', *BMC Medicine*, vol 16, 29 October 2016.
- <sup>11</sup> WHO, 'World malaria report 2020: 20 years of global progress and challenges', Geneva, World Health Organization, 2020.
- <sup>12</sup> United Nations Children's Fund (UNICEF), 'UNICEF Humanitarian Action for Children Overview', December 2020, <<https://www.unicef.org/media/88416/file/HAC-2021-overview.pdf>> accessed 15 January 2021.
- <sup>13</sup> Weiss, Daniel, Amelia Bertozzi-Villa, 'Indirect effects of the Covid-19 pandemic on malaria intervention coverage, morbidity, and mortality in Africa: a geospatial modelling analysis', *The Lancet*, vol 21, issue 1, 1 January 2021.
- <sup>14</sup> UNICEF, 'UNICEF Data: Malaria', <<https://data.unicef.org/topic/child-health/malaria/#more—1509>>, accessed 7 February 2021.
- <sup>15</sup> WHO, RBM Partnership To End Malaria, 'High burden to high impact: A targeted malaria response', 2019.
- <sup>16</sup> UNICEF, 'UNICEF data: Malaria', <<https://data.unicef.org/topic/child-health/malaria/#:~:text=In%202018%2C%20there%20were%20228,under%20five%20dies%20of%20malaria.>> accessed 15 January 2021.
- <sup>17</sup> WHO, 'World malaria report 2020: 20 years of global progress and challenges', Geneva, World Health Organization, 2020.
- <sup>18</sup> UNICEF, 'Global Covid-19 response', Appeal, <<https://www.unicef.org/appeals/covid-19>>.

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