

Transformative innovations, including long-lasting insecticide-treated nets, have [halved malaria mortality rates](#) over the first two decades of this century, saving 288,000 lives between 2000 and 2019. However, challenges such as insufficient access to nets, disrupted malaria services during the COVID-19 pandemic, and insecticide resistance, have hindered sustained progress towards malaria elimination.

To address insecticide resistance, next-generation nets like PermaNet Dual include two active ingredients: adding chlorfenapyr to a pyrethroid has been shown to enhance efficacy by [over 50%](#) compared with pyrethroid-only nets in some settings. In March 2023, the World Health Organization [strongly recommended](#) the deployment of pyrethroid-chlorfenapyr nets in regions where mosquitoes have developed resistance.

The Global Fund, one of the largest procurers of insecticide-treated nets, engaged with us to co-create a high-stakes [volume guarantee](#) and a new operational model to facilitate the rapid scale-up of PermaNet Dual at affordable prices. Drawing on our learnings from previous scale-ups of PermaNet 2.0 and 3.0, we ensured 100% “on time, in full” delivery. Within a year of the WHO recommendation, over 40 million quality-assured PermaNet Dual nets had been produced.

Countries battling malaria recognized the value of these next-generation nets as a vital tool that could help turn the tide against the disease, providing a solid foundation to boost the impact of other new innovations. As demand for 2024/25 is now exceeding donors’ most ambitious estimates, we are responding by accelerating our scale-up further, converting our entire manufacturing output so that it can now produce PermaNet Dual. This commitment has allowed both the Global Fund and the President’s Malaria Initiative to shift the majority of their 2025 bed net procurement to dual active-ingredient nets.





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Next-generation nets are the first intervention in the emerging new arsenal of tools to be deployed at scale, but there is still much work ahead. Continued investment in research and development, along with robust monitoring and evaluation frameworks, will be essential to ensure the ongoing efficacy and impact of next-generation nets. Community-led strategies to improve the use and maintenance of nets will enhance their effectiveness and longevity. Sustainability issues, including end-of-life solutions, also need to be addressed, and a critical access gap remains.

While the fight against malaria continues, we need to celebrate good news. The scale-up of PermaNet Dual exemplifies the power of partnerships in turning the tide against this deadly disease. By aligning goals and harnessing each other's strengths, we have been able to effectively navigate the complexities of introducing next-generation tools at scale, setting new standards for innovation and impact in public health. It is imperative to sustain this

momentum and continue supporting initiatives that drive progress and save lives.