

Wolbachia, the bacteria that took Tegucigalpa and Dengue by surprise. A new alternative for arbovirus vector control in Honduras

Introduction

By introducing the Wolbachia bacteria among the *Ae.aegypti*, mosquito populations, it is possible to reduce dengue rates in an area by up to

↓ **90%.**



Method

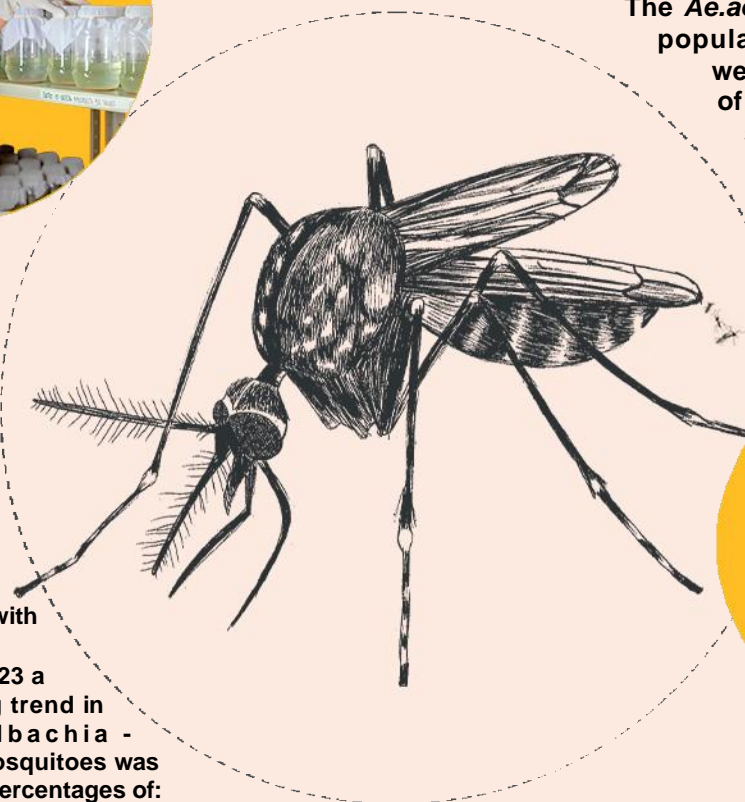
MSF began releasing mosquitoes on August 26, 2023 and is expected to continue until February 2024.

The *Ae.aegypti* mosquito population is assessed weekly by detection of Wolbachia surface proteins through polymerase chain reaction.

Results

As of November 30, 2023 over 2.500.000 mosquitoes had been released and currently through February 2024 and estimated 7.322.137 mosquitoes have been released and over 442 egg capsules have been distributed with community volunteers.

On November 30, 2023 a significantly increasing trend in the prevalence of Wolbachia - containing *Ae.aegypti* mosquitoes was observed, with weekly percentages of:



Discussion

Our preliminary results demonstrate an increasing trend in the prevalence of Wolbachia - containing *Ae.aegypti* mosquitoes. While this project is expected to continue for 3 years, early data suggest that it is on track to reach the goal

of 80% prevalence of Wolbachia - containing *Ae.aegypti* mosquitoes.

(The establishment of 82.79% was achieved by March 2024 and more than 8,300,000 mosquitoes released until week of the 29th of February, 2024).

