A turning point in an age-old fight against a killer
By Martin Edlund, Updated 2108 GMT (0508 HKT) December 28, 2015

(CNN) Until recently, if you asked for the most significant moment in the age-old fight against malaria, the answer would probably be 1897. That's when Dr. Ronald Ross (soon thereafter decorated with a Nobel Prize and knighthood) discovered that mosquitoes transmit malaria.

But many decades from now, when the word "malaria" evokes a blank look or a distant memory of a killer that preyed on the poor and the young, historians will point to 2015.

This was the year, they will say, when the generation that would end the deadliest disease the world has ever known, realized the impossible could be accomplished.

This was the year we recorded stunning global progress against malaria -- an unprecedented 60% decline in the rate of deaths and 6.2 million lives saved between 2000 and 2015. This was the year, as the Millennium Development Goals came to an end, that malaria stood out as a key success story, helping to make a powerful case that global goal-setting can be an effective way to tackle some of the world's most pressing problems.

This same year, African leaders adopted a malaria elimination agenda for the continent. That success was followed by another historic action thousands of miles away: 18 heads of state in Asia-Pacific endorsed a roadmap to eliminate malaria in their region by 2030.

This was also the year that Bill Gates and Ray Chambers, the United Nations Special Envoy for Malaria, released a vision for eradication within a generation. Their report, called "Aspiration to Action: What Will it Take to End Malaria?" was the first ever "business plan" to spell out the tools, strategies and financing needed to end the disease for good.

Speaking to the U.N. General Assembly, President Barack Obama called it a moral outrage that "many children are just one mosquito bite away from death," and urged the world to act. Reinvigorating the UK's commitment to the malaria fight, Chancellor George Osborne announced a 1 billion-pound fund (named for our old friend Ronald Ross) aimed at eradicating malaria and other infectious diseases and declared the "ambition to see the end of this global disease in our lifetimes."

But it wasn't just global leadership that made 2015 so pivotal. Breakthrough innovations and swift advances in technology promised to transform the very battleground of our fight against the deadly parasite and the mosquitoes that carry it to humans.

In 2015, as Chinese scientist Dr. Youyou Tu accepted the Nobel Prize in Medicine for her discovery of an effective malaria treatment that has saved millions of lives, scientists in different corners of the world used advances in gene-editing techniques to create a mosquito incapable of passing on the parasite.

Meanwhile, breakthrough products moved closer to market. New highly sensitive diagnostics that can detect malaria even when there are no symptoms, and single-dose cures continued in clinical trials. This year, the world's first partially effective malaria vaccine -- while not perfect, but still a positive step forward -- was approved for use in pilot studies in Africa.
One of the most amazing and potent advances has been in the ability to use mobile data, modeling, and mapping to pinpoint malaria cases and understand how the disease travels across populations and geographies. As recently as five years ago, we had no practical way to diagnose malaria in the field; now we can pinpoint where the parasite lives and how it moves so we can sharpen our aim.

A recent Economist cover story said eradicating malaria would "rank among humanity's greatest achievements." In every great achievement there is a moment when the path to success comes into focus. I've been focused on malaria for the past decade, and I believe 2015 has been that moment in the malaria fight.

The story of humanity's battle against its deadliest disease is an inspiring tale of commitment, innovation and persistence. The United States has been the clear leader in the fight, especially when former President George W. Bush launched the President's Malaria Initiative and pledged U.S. support for the Global Fund to Fight AIDS, Tuberculosis, and Malaria. President Obama and both parties in Congress have since doubled down on malaria, increasing funding and accelerating progress to save millions of lives.

We have made huge strides, but the job is not finished. This year, nearly half a million people still died of malaria. Most of them were small children and pregnant women.

But the remarkable year we've just witnessed should send a strong message to the world: This is a winnable war. In an increasingly polarized world, it is a rare cause that has all of us on the same side against one tiny, but mighty enemy.

Success won't just mean defeating this single disease -- it could provide a blueprint for disease eradication in the 21st century. And it will remind us of what humankind can accomplish when it harnesses its full capacity to change the world for the better.