Humans vs. Mosquitoes

Game History

In 2011 a group of Yale University professors assigned their graduate students to help the international Red Cross and Red Crescent teach people how mosquito-borne diseases such as dengue fever and malaria could expand with climate change. The Yale students got together with student game designers from The New School’s Parsons School of Design and they invented Humans vs. Mosquitoes (http://HumansvsMosquitoes.com).

Games are a great way to teach a lesson while having fun, so adults learn along with the children. Since its creation, adults and children around the world have played this game to learn how simple actions can help stop the spread of dangerous diseases. Thousands of people of all ages have learned the game in Kenya, South Africa, Uganda, Vietnam and the Philippines.

Game Focus

To educate the public about the following:

- risk factors for dengue, especially those related to climate change
- consequences of human behaviors that affect the spread of dengue

Over 2.5 billion people worldwide are at risk of contracting dengue. From 50 to 100 million cases of dengue fever and 250,000 to 500,000 cases of dengue hemorrhagic fever occur each year in more than 100 countries. Dengue—found in tropical and subtropical climates, and in urban and semi-urban areas—is spread by infected female Aedes aegypti mosquitoes. Four different viruses cause dengue. An infected person will develop lifelong immunity to that specific virus and transient immunity to the other three viruses.

There is no vaccine, cure or specific treatment for dengue fever, so prevention remains the only effective strategy. Dengue can be prevented through control of the mosquito population with biological, chemical and environmental methods. The International Red Cross and Red Crescent promotes dengue interventions that focus on the importance of clearing mosquito habitats rather than using insecticides. This game highlights the importance of prevention, especially by clearing mosquito habitats.

Climate change will influence the transmission of dengue. Fluctuations in rainfall, warmer weather and water shortages will all increase the prevalence of this disease. The International Red Cross and Red Crescent is one of the humanitarian agencies that are actively responding to the healthcare effects of climate change by organizing education and habitat clearing campaigns to reduce the spread of dengue in countries such as Peru, Bolivia and Paraguay. Climate change will place a greater burden on humanitarian agencies responding to dengue epidemics. These organizations will require increased support to reach the most vulnerable populations worldwide.

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